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ABSTRACT

Presenting a diverse collection of beliefs, the readings cover many facets of the administration of cooperative education programming. Opinions of 31 experts are offered, drawing from leading cooperative education colleges and from major business, industrial and governmental organizations participating in cooperative education. The document consists of the summarizations of presentations at several one-week institutes on Administrative Training in Cooperative Education conducted between 1972 and 1974 by the Midwest Center for Cooperative Education at the University of Detroit. Following an overview of the field and its philosophy is a collection of employer's views on why employers participate in cooperative education and how employers select cooperative students. In discussing the school and the employer, topics considered include recruiting employers and comparison of students' and employers' needs. Some thoughts on cooperative program management, coordinator responsibilities, non-technical disciplines in cooperative education, forms, and community colleges are discussed in relation to the administration of cooperative education programs. Further areas of interest treated are: academic credit for cooperative training experiences; faculty and public relations; minority students; and Federal funding. (MW)

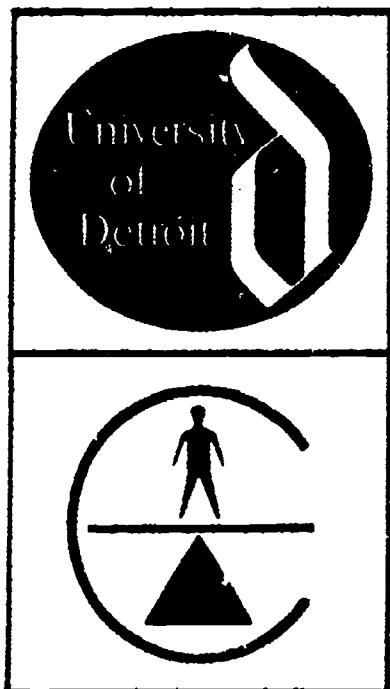
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# 50 VIEWS OF COOPERATIVE EDUCATION

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DONALD C. HUNT

Second Edition

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# FIFTY VIEWS OF COOPERATIVE EDUCATION

A compilation of the notes of the faculties  
of the several Institutes on Cooperative Edu-  
cation Administration conducted during 1972-74  
under a Title V-E, EPDA, Grant from the U. S.  
Office of Education, Bureau of Higher Education

By

Donald C. Hunt

Director of Cooperative Education

University of Detroit

SECOND EDITION, 1974

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This publication has been prepared for the participants and faculties of the Institutes conducted by the Midwest Center for Cooperative Education. Others interested in Cooperative Education Administration may obtain copies by writing to the publisher.

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**First Edition**

**First Printing - July, 1973**

**Second Printing - April, 1974**

**Second Edition**

**First Printing - July, 1974**

## PREFACE

During 1972-74 the Midwest Center for Cooperative Education at the University of Detroit conducted several one-week Institutes on Administrative Training in Cooperative Education. The faculty was drawn from leading cooperative education colleges and from major business, industrial and governmental organizations participating in cooperative education. The "Views" are their summarizations of their presentations and together represent the greatest collection of "expertise" ever assembled.

Of particular significance are the opinions of the several employers on basic considerations relating to their viewpoint of cooperative education. To our knowledge, this is the first time ideas of this kind have ever been published.

Presented as a collection of beliefs, "Fifty Views" covers many facets of the administration of cooperative education programming. It was intended, and the intention was fulfilled, that there would be differences and even strong disagreements among the contributors. It is these diverse opinions that makes the "Fifty Views" worth reading and further confirm that the most effective programs of cooperative education are those which are planned by each college in terms of its purposes, resources, and kinds of students served, and in cooperation with employers.

Ralph Tyler, the noted educator, said in 1961, "When cooperative education is treated as a basic concept for relating theory to practice in education, and when flexible arrangements and varied procedures are evolved, rather than a rigid set of operations, the resulting program is more likely to become a very successful one".

The Second Edition of "Fifty Views" contains several new views and revisions of old views from contributors who suddenly found their presentations in print. However, most significant in the Second Edition is Larry Canjar's famous "convert" speech. He had given this several times during the three years preceding his death, but he left no notes. He apparently gave the talk each time without any preparation because he had lived the experiences he describes and they were very real to him.

We kept searching and hoping that somewhere, someone, had taped the talk and finally we discovered a recording in Arkansas. Now it is permanently preserved in the archives of the Cooperative Education Association.

ROBERT AULD, Emeritus Dean of Cooperative Education at Cleveland State University, edited the "Views" and organized the presentation. We greatly acknowledge his contribution.

Donald C. Hunt

Detroit

July, 1974

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## CONTENTS

### PART I. PHILOSOPHY

Page

#### My Conversion to Cooperative Education

Lawrence N. Canjar - University of Detroit

1

#### An Overall View

Donald A. Smith - Alderson-Broaddus College  
Gerald E. LaMotte - University of Detroit  
R. Lynn Womack - Virginia Polytechnic Institute

4

7

8

### PART II. EMPLOYERS DISCUSSION ON COOPERATIVE EDUCATION

#### The "Why"--Employers Participate in Cooperative Education

Gary E. Wilson - The International Nickel Co., Inc.  
Donald E. Irwin - General Electric Company  
Joseph F. Bugeia - Ford Motor Company  
Dean Lomman - 3M Company  
William E. Weisel - Cincinnati Milacron, Inc.  
John Campbell - Union Carbide Corporation

10

12

13

14

16

17

#### How Employers Select Cooperative Students

Joseph F. Bugeia - Ford Motor Company  
Donald E. Irwin - General Electric Company  
L. L. Knickerbocker - Detroit Edison Company  
Dean Lomman - 3M Company  
William E. Weisel - Cincinnati Milacron, Inc.  
Nancy Balog - The J. L. Hudson Company  
John Lewis - Detroit Bank & Trust

20

21

22

23

24

25

26

### PART III. THE SCHOOL AND THE EMPLOYER

#### Recruiting Employers

Robert L. Brown - W.W. Holding Technical Institute  
James T. Godfrey - Virginia Polytechnic Institute  
George H. Miller - University of South Florida  
W. A. Stull - Virginia Community Colleges

28

29

31

32

#### Comparison of Students' and Employers' Needs

S. B. Collins - Drexel University  
S. J. Hirschfield - Chrysler Corporation  
Wanda B. Mosbacher - University of Cincinnati  
M. G. Tammen - Arthur Andersen & Company

33

34

35

35

## PART IV. ADMINISTRATION OF COOPERATIVE EDUCATION PROGRAMS

Page

### Some Thoughts on Cooperative Program Management

Walter F. Thomason - Broward Community College	37
W. A. Stull - Virginia Community Colleges	38
David W. Kuhar - University of Detroit	40

### Coordinator Responsibilities

Walter F. Thomason - Broward Community College	41
James T. Godfrey - Virginia Polytechnic Institute	42
George H. Miller - University of South Florida	43
L. Glenn O'Kray - University of Detroit	45
John A. Crusoe - University of Detroit	46

### Non-Technical Disciplines in Cooperative Education

Wanda B. Mosbacker - University of Cincinnati	49
---	----

### Forms

Wanda B. Mosbacker - University of Cincinnati	50
Robert B. Auld - Cleveland State University	51
Julius Randall - Pratt Institute	53

### Community Colleges in Cooperative Education

Robert L. Brown - W.W. Holding Technical Institute	56
Roger E. Hedgepeth - Virginia Polytechnic Institute	57
Paul Gould - Macomb County Community College	59

## PART V. ACADEMIC CREDIT FOR COOPERATIVE TRAINING EXPERIENCES

Lawrence N. Canjar - University of Detroit	61
Wanda B. Mosbacker - University of Cincinnati	63
George H. Miller - University of South Florida	64
S. B. Collins - Drexel University	66
Robert B. Auld - Cleveland State University	66

## PART VI. FACULTY AND PUBLIC RELATIONS

James F. Vickery, Jr. - University of South Florida	68
Wanda B. Mosbacker - University of Cincinnati	70
Robert B. Auld - Cleveland State University	72
S. B. Collins - Drexel University	74

## PART VII. MINORITY STUDENTS AND COOPERATIVE EDUCATION

James T. Godfrey - Virginia Polytechnic Institute	75
George H. Miller - University of South Florida	76

## PART VIII. FEDERAL FUNDING

Sinclair V. Jeter - U.S. Office of Education	78
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## PART I. PHILOSOPHY

### My Conversion to Cooperative Education

LAWRENCE N. CANJAR\*

I am a convert to cooperative education and that is why I was invited this evening. I am going to talk about cooperative training from the academic point of view. I think really what they want me to do is to talk about my conversion, and this I enjoy doing.

You have to understand what kind of school I came from--Carnegie Mellon. I spent 25 years of my life at Carnegie Mellon. I started as a freshman and left as Associate Dean of Engineering. As Associate Dean my first freshman class had an average college board score of 720, so you have some idea of the kind of students we attracted. The faculty were all renowned scholars working in that tradition of taking a real fine mind and exposing it to as much theory as they possibly could, and then giving it to the world and saying, "here are the perfect products of a perfect school."

I took the job as Dean of Engineering at the University of Detroit because it looked like it was a challenging sort of thing. I think if you put yourself in my shoes coming from a place like Carnegie Mellon, Detroit was a challenge--the type of school that had no graduate work, that had a faculty whose strength was really in practice rather than in research, and I really didn't know the caliber of students.

I heard we had a cooperative program at the University of Detroit, and I began to mull around in my mind, how am I going to get the faculty out of that trap? Anybody who would waste their time in a cooperative program--an extra year of professional life that had absolutely no value whatsoever--it would be much better for a student to borrow money and get through school quicker. My first objective was to eliminate the cooperative program.

Before I get into the stories of my experiences at the University of Detroit, let me point out that one of my activities at Carnegie Mellon as Associate Dean was to be a liaison for industry. I always got the same story from industry--they chewed me out every time. They said what bright fellows we turned out, how brilliant they were, how they could solve all sorts of problems, but somehow it took about 6 months to a year to really fit them into the organization. The guys were all sort of mixed up. They didn't know what industry was really about. They were somewhat impractical; they expected somebody to give them a beautiful complicated program and they would solve it if someone told them exactly what the problem was and what sort of questions had to be answered. The vice presidents and personnel men said you have a great product, but it is not properly oriented.

When I first came to Detroit, the first thing I wanted to do was to go to industry because one thing industry always told me was "you guys in education do as you damn well please and you never check with us". If I was going to turn Detroit into one of the top-notch schools in the United States, I would need to get industrial input. I realized that Don Hunt had contact with the

\*Lawrence N. Canjar, Dean of Engineering at the University of Detroit, died suddenly on Monday, November 6, 1972. His loss is felt most deeply by all in Cooperative Education, for he was one of the movement's most enthusiastic and articulate advocates. Dean Canjar made this presentation October 23, 1972, at the Cooperative Education Institute held on the Colombiere Campus of the University. We are indebted to Mr. Audrey Thomas of John Brown University for providing the tape, which is the only record of this favorite speech of Dean Canjar.

principal engineering activities in Detroit so I asked him to take me around. Instead, he made appointments for me with 25 vice presidents of engineering, chief engineers, project directors, and other principals. To my surprise, he suggested that I go alone so that he would not personally influence their opinions of Detroit graduates. My first surprise was the magnitude of the engineering operations and the quality of the activities--I had not realized what I now know --that nowhere in the world is there as much professional engineering activity as there is in the Metropolitan Detroit area.

I had heard what was good and bad about the products of Carnegie Mellon and now I wanted to hear what employers wanted from Detroit. Surprising to me was the universal satisfaction by all the employers I met. They readily welcomed the caliber of graduates that Detroit produced. Even in the sophisticated engineering facilities which I visited, Detroit graduates were excelling. They praised us for our cooperative program and what a fine job we were doing turning out engineers, who not only had degrees, but knew what industry was about and what they wanted to do in industry.

I tried to disregard much of the glowing responses, but I could not totally ignore the highly favorable image industry had of University of Detroit engineers. It was really a surprising experience for me to find a school that had students with college board scores 200 points, on the average, below Carnegie Mellon students who really impressed their employers when they went to work. I didn't quite understand that. I decided that maybe there was something to cooperative education after all, which I knew nothing about, and I had better tread easy before I got rid of this kind of a program.

The next experience I had was when Dean Gerardi and I were looking at some of our freshmen and I noticed some of them had college board scores as low as 450. I told Dean Gerardi "we just can't take these students with such low scores". He looked at me and said "you're out of your mind. Some of these kids are going to graduate and are going to do very well". I challenged him on that. We looked over the current graduating class and traced back to find out what kind of scores they had when they were freshmen and indeed a sizeable number of the students had extremely low college board scores and somehow they were quite successful in industry. You know, this took me back a little bit, too.

Just before I left Carnegie Mellon I had taught a thermodynamics class to 90 juniors. There was a thermodynamics class of 90 students waiting to be taught at Detroit. Here was a whole class of students with college board scores 200 points below the one I had just left in Pittsburgh. I taught the class, every quiz was the same, it was given exactly the same week of every semester, every homework problem was the same and they were graded in the same way. There were four quizzes and a final examination, which is a considerable amount of testing for a course like that. And to my utter amazement...I can say that there was no significant difference in the two classes. As a matter of fact, the students at U of D were 4 points higher out of 100 than the students at Carnegie Mellon. This was a shocking experience but in the process of teaching the course, I began to suspect that this was going to happen.

My third experience involved an electrical engineering honorary fraternity which asked me to give them a lecture on leadership. I thought, "what am I going to tell these guys about leadership? This could be a deadly experience, giving a talk on leadership." We had this session in my home. I broke open a couple cans of beer for the boys and we relaxed. I said,

"before I get into my discussion on leadership, let's find out if you ever met any real leaders". Here were students who had two cooperative experiences and they began to ask themselves if there were any leaders where they worked. One student said he had a real leader and began to describe some of his characteristics, and another said "you know the funny thing about leaders in industry is that they don't get very far". I said, "that's strange; what do you mean they don't get very far?". He said he knew this bright guy who didn't get promoted. There was this guy who wasn't too sharp, but he got promoted over this leader. I began to ask what were the characteristics of the guy that got promoted. "Well", he said, "he sort of gets the work out, he cracks the whip, and somehow he didn't dwindle over a problem for 3 or 4 months like this real bright guy did". They began to realize that the person they were admiring was the bright guy, not necessarily that he ever did anything. Which guy does the most good for the company and does what the company expects him to do? Did the company tell everybody what they expected them to do? The answer came back, yes, it was perfectly clear to them what they were supposed to do and the bright guy probably wasn't doing what the company asked him to do. He was sort of sitting around being very cynical bout the company objectives. All of a sudden it occurred to me that in this discussion in which I did not lecture and in which these students compared notes with one another, they had observed real leadership and they observed what the world wanted of them. Somehow in that living room, after about two hours of conversation and sharing experiences, they thought it out themselves. There was nothing I could teach them, they already knew it.

Needless to say, I became a real convert to cooperative education. By this time I had no intention of dropping the cooperative education program. It became obvious to me that cooperative education enhances the academic program. My teaching thermodynamics was more vibrant, more alive, more exciting, because these students had a reference point that they could base this theory on. Going out on a job you learn something about leadership, something about management. I came out thinking of what I got from talking to the employers--that there was a smooth transition from the academic world over to industry. In other words, the employer didn't see in the graduates the same problems at the University of Detroit as they saw at Carnegie Mellon. The Carnegie Mellon graduate had trouble adjusting to what was expected of him in industry, but the University of Detroit graduate made a great impression on his boss.

I recommend, obviously, cooperative education to everybody, but let me leave one thought with you ... a lot of people think that cooperative education is simply a way of earning money, of getting students through school; obviously it does that. But if you are really deeply committed to cooperative education, and if you can somehow transmit that to the faculty on your campus, cooperative education can really be the most important part of the students' training or education at the school. We believe in it so strongly at U of D that we have incorporated it into our graduate program. At the graduate level we have a doctorate program in engineering. A doctorate candidate interns in industry. They perform their dissertation on site, working on authentic problems that they find in the industry.

If you develop the kind of a commitment we have at the University of Detroit, I think you will find cooperative education as rewarding and fulfilling as I have, and this is the story of the conversion of Larry Canjar.

## An Overall View

DONALD A. SMITH - Alderson-Broaddus College

**BACKGROUND:** The educational climate at the turn of the current century led to major innovations in education, including public education, general education and an interesting but highly debatable concept called cooperative education.

**CURRENT CLIMATE:** Some elements of the current climate in higher education were to be found in a young twentieth century, including a depressed economy, strong interest in career education, anti-intellectualism and the perception of education as a stepping-stone to status.

Some elements are new to the current climate, including an oversupply of college graduates in the employment market, new competition among colleges for the same students, declining employment opportunities in certain professional areas, the need to upgrade the status of blue-collar jobs, the lack of orientation of college graduates to the world of work, the increasing role of the two-year institutions, new commitments to minority workers, the student's need to work to pay burdensome educational expenses, and the disillusion of youth with the structure and values of education and the larger society.

**HISTORY OF COOPERATIVE EDUCATION:** As in the case of all important ideas, times and dates are affixed to prominent happenings which signal the attention of the observer on the developing concept. Cooperative Education is traditionally identified as having come to fruition first at the University of Cincinnati in 1906 when the Dean of Engineering, unable to find acceptance for the idea in an eastern university, found support in this highly industrial Ohio town. The program represents the traditional approach to cooperative education: engineering oriented with long-range commitments to industry on the part of the institution and the student employee.

The creation of a cooperative education program in 1921 at Antioch College illustrates the first major broadening of the original concept into a liberal arts setting. Here, the emphasis is upon the student and his interaction with a variety of experiences. The concept of training is secondary. Many traditionalists criticize the experiential approach.

1924 saw the creation of a cooperative education program within industry, when the General Motors Institute established alternating periods of work and study for engineers in specified automotive curricula.

Bennington College introduced the interim experience in 1932 in which students utilized short seasons between academic terms for creative and career-related activities, an early innovation in calendar.

Traditionalism in higher education retarded the growth of the concept of cooperative education until the 1960's. There were 24 cooperative institutions in the United States in 1952, 50 in 1962 and 400 in 1973. By 1984, perhaps half of the institutions in the United States will have developed some form of the program.

Why the sudden interest? A number of things happened in the 1960's: civil rights, the two-year institutions, vocational education, recession, the alienated generation, declining college enrolments and national service. With many college administrators seeking marketable programs and new resources for sagging budgets, all eyes turned to a new Federal funding program in cooperative education. And "that's where it's at" right now.

Not enough time is spent by college and industry alike on the development of objectives unique to the climate, history and the purposes of the participants in cooperative education programs. One or more of the following represent the written (and unwritten) objectives for these programs:

- Earnings, perhaps the primary reason why most students enlist in cooperative education programs, and an objective for colleges which initiate such programs.
- Pre-professional experience, a secondary student motivation and one important to developers of professional programs.
- Recruiting, the primary employer objective, both for long-range employment and for short-term manpower needs. A public relations function as well.
- Job orientation and training, a secondary objective for the employer who reduces his initial orientation period for the new employee by hiring cooperative students full-time after they graduate.
- Admissions, the primary motive of many cooperative colleges, either for professional and vocational curricula, or for the liberal arts college.
- Laboratory experience, an important objective for skills-oriented training.
- Personality development, the least evaluated and most noted aspect of all experience programs - a primary objective for the liberal arts based program.
- Humanitarian service, a new alternative to military conscription and the stated objective of many students and some colleges.
- Minority assistance, one of the important objectives of the Federal assistance programs in which cooperative work facilitates the entry of minority graduates into the world of work.
- Attitude change, a primary objective of new vocational educational legislation to increase the acceptance by college students of entry-level positions and to upgrade the status of blue-collar jobs.
- Skills training, to help both underachievers and entry-level employees develop useful skills for legitimate participation in the economy.
- Improved communications, among all levels of society, but especially between the academic and economic sectors.

PROJECTIONS: In April, 1973, Roy L. Wooldridge of Northeastern University made the following projections for the movement over the next ten years:

- The objectives of cooperative education will broaden and be more inclusive.

- The format will become more flexible.
- There will be a closer relationship with the academic faculty.
- The ages of cooperative education students will cover a wider range.
- A greater variety of student backgrounds and prior experiences will be seen.
- There will be a greater stress on continuing and adult education.
- There will be more emphasis placed on the search for meaning in work.

THE ISSUES: What are the current and impending issues in cooperative education? The following are probably paramount for the decade ahead:

- KNOW THYSELF The question of program objectives should be the first question asked in considering a cooperative education program.
- GOVERNANCE The relationship of one institutional cooperative program to another is but one example of the complex structure of relationships, including consortia programs, the role of the Federal government, the leadership of the Cooperative Education Association and the Cooperative Education Division of the American Society for Engineering Education, or the blossoming Society for Field Experience Education, and the national service alternative to military service.
- FUNDING Who will pay the bill for salaries, travel and supplies for cooperative programs? A fee structure? A charge for tuition for academic credit attached to the program? General income? Federal grants or private endowments?
- ACADEMIC CREDIT The question of academic credit, long a fiery issue between cooperative education and traditional faculty exponents is receiving new fuel from dissatisfied students, and business managers looking for a way to pay the bills.
- CONFLICTING OBJECTIVES Not all the objectives for cooperative education listed earlier can exist happily under one roof--or can they? The truth is that some tension exists between the objectives of students, employers and colleges. The question becomes how to develop a program in which the majority of the objectives of all participants in the triangular relationship are at least partially met.
- SUPPLY AND DEMAND The long-term will have to see a balancing of supply and demand, a coming to grips with the increasing number of cooperative education colleges and students and the opportunities available for meaningful involvement in business, industry, government and service agencies. Who should oversee the marketplace: government? employers? educational institutions? professional organizations? Will government be forced to fund work experiences in private sectors as well as in public service agencies?
- LEADERSHIP Where does it now lie, and where should it lie in the future? Will the Cooperative Education Association, in cooperation with the Cooperative Education Division of the American Society for Engineering Education, become an umbrella society, as many hope, or will the Society for Field Experience Education find the resources and grass-roots support to escape a separate destiny?

- PLACEMENT COORDINATION With the cut-backs in many college and employer budgets, administrators are giving a second look to the economics and efficiencies of college recruitment, the practice whereby major employers send recruiters to conduct employment interviews with graduating students on the college campus. Some Colleges have already done away with the personnel engaged in administering the placement office, or enlarged their responsibilities to include functions related to admissions, counseling or funding-raising. A few placement officers find themselves new directors of cooperative education programs, attend cooperative workshops, and find themselves talking over old times with former industrial recruiters new to the cooperative game themselves. Perhaps another look will be taken of the objectives of cooperative education and placement in preparation for a not-too-distant marriage.

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GERALD E. LAMOTTE - University of Detroit

One of the most exciting and stimulating dimensions in the field of education today is that which we are gathered here to discuss--Cooperative Education. The name Cooperative Education reflects the necessary cooperative relationship established between an institution and an agency providing a work situation. Cooperative Education programs are offered at junior college, senior college, and graduate school levels. It has been estimated that by the mid-70's, as many as 500 colleges and universities will offer such programs. To better understand it, let's take a look at its history.

HISTORY: Cooperative Education was founded at the University of Cincinnati in 1906 by Herman Schnaider, and the first students began their employment in September of that year. These students, approximately 15 in number, were electrical and mechanical engineers with a few chemistry majors involved. Other schools quick to catch on to the relevancy of the times were Northeastern University in 1910, and my own alma mater, University of Detroit, in 1911. Six other institutions adopted the program between 1912 and 1919. It was in 1919 that the first non-engineering cooperative program was initiated, and it was, appropriately, in the business school at the University of Cincinnati. In the period 1906 to 1942, growth was moderately steady. The second growth period in the Cooperative Education movement began in 1950 and has continued to the present time. The number of Cooperative Education programs established during this period has increased the total number astoundingly. From approximately 35 institutions offering the program in the mid-50's, there are now an estimated 100,000 students enrolled in over 225 colleges, universities, including six in Canada, and community colleges, with earnings of over 221 million dollars. A couple of other highlights of its history would include the institution of the Cooperative Education Division of the American Society for Engineering Education (CED/ASSEE) in 1930 and the Cooperative Education Association (CEA) in 1963, and of course the Midwest Center for Cooperative Education in 1969. Now, what is Cooperative Education?

PHILOSOPHY: The best philosophy would be its definition. Cooperative Education is the integration of classroom work with practical experience in an organized program in which students alternate full time periods of attendance at college with periods of full time employment in business, industry, government, or service type work situations. The work experience must constitute a regular and essential element in the educative process and some minimum amount of work experience and minimum standards of performance must be in-

cluded in the requirements of the institutions. The misconception that Cooperative Education was exclusively engineering-oriented disappeared during its second growth period. Since 1950, areas of business administration, liberal arts, and education have been the most significant accelerators in its rapid growth. This expansion has created two concepts of Cooperative Education as viewed by Mr. Donald C. Hunt, a renowned authority in the field. Mr. Hunt distinguishes the two concepts as "career-oriented" programs and "environment-oriented" programs. While the "career-oriented" program is pointed to a specific profession or even a specialized part of the profession, the "environment-oriented" program offers work experiences in environments different from those a student is used to. In the career training the assignments are increasingly more difficult, whereas the environment-oriented student must adjust to ever-changing situations on jobs where his skills or knowledge may or may not be important. There is no uniformity to the pattern of programming of cooperative training, no one particular institution stands out from others. The most effective programs are those carefully worked out by each college, respective of its purposes, resources, and kinds of students served, and its cooperation with employers.

**EDUCATIONAL COMPONENTS:** I suppose the most obvious benefit of the Cooperative Education Program is that theory and practice are more closely related. Consequently, student motivation is enhanced and a greater interest in academic work results. In addition, increased understanding of other people and better skills in human relations is instilled in the cooperative student. Cooperative Education makes higher education possible to many who would otherwise be unable to attend college. A more efficient utilization of college plant and other facilities is realized, and participating employers recognize it as a means of maintaining a flow of trained personnel. A number of colleges find Cooperative Education provides greater recognition of their services to the community, thus furnishing an additional basis for moral and financial support for the community.

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**R. LYNN WOMACK - A Cooperative Engineering Student at Virginia Polytechnic Institute**

When asked to report on why I participated in cooperative education I began to think in terms of the values I placed on my education. I felt that I needed to consider my purpose for pursuing higher education and where cooperative education fits into this pursuit. What follows is the results of my study into the philosophy of my education--cooperative education.

Basically, I am an existentialist in my thinking but after reading and studying positions of various philosophies of education, I found that my personal philosophy of education inculcated positions from four other philosophies as well. What I will attempt to do in this paper is to incorporate these various positions into what I think is the premise of my thinking on education.

The first position I would like to include in my philosophy comes from the Behaviorists. It states that human beings should be provided with "those skills values and attitudes which are necessary for maximum use of the environment for the individual." George F. Kneller, in his book Philosophy of Education, writes

Reality itself is not simply external to man but  
is created by the interaction of the human organism with  
its surroundings; reality is the sum total of what we  
experience. Man and his environment, therefore, are "co-

ordinate". Both are equally responsible for what is real.

We must prepare ourselves to derive the meaning out of this world in which we live. This is where education must be totally cognizant of the changes in our environment.

Perception of the realities of life is the key to the thinking of the Essentialists. They believe as I do that "the school should retain an atmosphere of mental discipline, yet incorporate innovative techniques which would introduce the student to a perceptual examination of the realities about him." Educational curriculums should enable the individual to realize his potentialities, establish long-range goals for himself and set down plans to accomplish these goals. Issac L. Kandel, in his book Conflicting Theories of Education, elaborates on this conjecture:

Since the environment carries in itself the stamp of the past and the seeds of the future, the curriculum must inevitably include that knowledge and information which will acquaint the pupil with the social heritage, introduce him to the world about him, and prepare him for the future.

Along this same vein of thought, the Perennialists believe that "education is not a true replica of life; rather that it is an artificial environment where the child should be developing his intellectual potentialities and preparing for the future."

Problems-solving in the real world, combining the practical with the theoretical--this makes up the basis of the Progressivists' position which states that "growth, through the reconstruction of experience, is the nature and should be the open-ended goal of education." Where would we be if we could not apply the knowledge that we obtain in the classroom to real-world situations? John Dewey, in his book Democracy and Education expressed this thinking:

We thus reach a technical definition of education; it is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases the ability to direct the course of subsequent experience.

We now come to the basic premist of my philosophy of education as is so amply stated by the Existentialists, whose thinking I feel a closer attachment to. "The essence of education is choice and students need a passionate encounter with the perennial problems of life; agony and joy of love, reality of choice, anguish of freedom, consequences of actions and the inevitability of death." I believe that this is the ultimate educational experience and will only be achieved through the communion of the total person, the educational system of the future, and the real world in which they reside.

Thus, you have what I consider to be the philosophy of cooperative education that I and others that participate in the program are seeking in our pursuit of higher education.

## PART II. EMPLOYERS DISCUSS COOPERATIVE EDUCATION

### The "Why"--Employers Participate in Cooperative Education

GARY E. WILSON - Huntington Alloy Products Division

Since its beginning early in the century, Cooperative Education has grown tremendously. To best describe why the Huntington Alloy Products Division has participated in the growth of this program, let me begin by mentioning something of our experience.

The Division was assigned its first cooperative student by the University of Cincinnati in 1923. Our incoming cooperative students now find it interesting that we have retired employees with 40 to 45 years' experience who participated in the early years of Cooperative Education.

The effects of this program are very evident at the Huntington Division. Many members of our staff at the professional and managerial levels did their cooperative work with us. This includes the past President of our Division, Mr. J. E. Carter, who is now Executive Vice President of the International Nickel Company of Canada, Ltd., our parent organization, and a member of the Board of Directors. Also, the Assistant Vice President and Research and Development Section Heads, the Production Manager, two Superintendents, and 50 or so others in our management are former cooperative students.

We in business and industry must look at Cooperative Education in a practical way. We want to provide meaningful work experience to the students while receiving a return for the dollars we invest. We believe both can be accomplished. What are some of the benefits employers might expect from Cooperative Education?

**RECRUITMENT:** Cooperative Education is increasingly important to us as a source of proven talent. The program offers an opportunity to evaluate a student before a pertinent employment decision is made. Through the performance of the cooperative students we can determine how they can best be trained and developed as permanent employees. This is an important pragmatic benefit that effective college cooperative coordinators keep in mind when assigning students to employers.

**LOW TURN-OVER:** Another benefit from the employment of the graduating cooperative students, to us at least, has been the extremely low rate of turn-over. While we enjoy a very low rate of turn-over at Huntington among our professional employees, the record for ex-cooperative students is much better than we experience with other professionals we employ. The students have an opportunity to evaluate an employer before making the important career decision.

**MORE IMMEDIATELY PRODUCTIVE:** We find the cooperative graduates are more immediately productive than graduates who have not had cooperative experience. For example, the engineering graduates who have completed the cooperative program rarely require more than two months or so of training and perhaps more frequently we are able to assign them directly to productive work with little or no training in addition to their cooperative work periods. However, when we employ professional engineers outside the cooperative program, we expect to provide a year's training.

**NEW IDEAS:** The entry of bright, young people, fresh from an educational environment can provide us with new ideas. The cooperative students are undergoing college programs which prepare them for a job and they are eager to succeed. The cooperative students often bring contagious enthusiasm to their jobs and make real contributions to our operations.

**DEVELOP MORE TOTAL UNDERSTANDING:** By working with and observing people of varied disciplines and backgrounds in this actual work situation, the cooperative students realize the relevancy of classroom work as well as work outside their immediate specialities. This contributes to their understanding and, in turn, makes them more valuable employees.

**VITALITY IN EDUCATION:** The students play a very important role in keeping faculty in touch with the needs of employers, which is an indirect benefit to employers using the cooperative program because some schools formally tap this source of information and use it in planning curricula and in teaching.

It is important that with the benefits of the Cooperative Education Program there are also responsibilities and problems. We must face the fact that not all cooperative students are ideally suited to the program because they are working in the wrong field or are working with the wrong type of organization. Employers, as well as colleges and universities, have a responsibility to guide the students--to help them find their place. We have a tendency to avoid this because it can be unpleasant. However, no counselor or employer should ever shirk this responsibility. The students deserve and will eventually appreciate an honest evaluation and/or recommendation pointing them toward the career for which they are best suited.

It is appropriate, I believe, to mention what I regard as one of the most serious problems in the utilization of cooperative students. It is my personal opinion and observation that the capabilities of these highly intelligent, highly motivated young adults is often under-utilized by many employers. Learning to use cooperative students effectively is not easy. It might call on some of us older, more experienced people to admit these students have some wonderful ideas. Ideas often as good as or better than our own.

Certainly, today's college students have a far greater sense of awareness of the world around them and its problems. They challenge any system, any organization they feel is not operating as it should. Business and industry is one of their favorite targets. The cooperative students are no less critical than any of their fellows, but they are more mature in their criticisms because of their work experience. They do not expect "push button" answers to complicated questions.

In Cooperative Education, students learn to work with others--not to destroy what we have, but to build, create, and develop more meaningful and rewarding relationships with employers, fellow-workers, and society as a whole. It seems to me this is one of the major facets of professional life more readily gained in an actual work situation rather than in the classroom. If we employers can help students gain these concepts through the cooperative program, then this alone might offer all of us--students, college, employers--an adequate return on our investments of time, money, and effort.

DONALD E. IRWIN - General Electric Company

The cornerstone of a successful cooperative program is the work experience. The need for actual involvement in the realistic environment of work was the motivation which gave Herman Schneider the idea of cooperative education. He has observed two problems in teaching engineering. First, he had noted that many elements of most professions could not be taught effectively or at all in the classroom but required practical experience for fuller understanding. Second, he found that most students either needed or wanted work during their college careers and that most of these jobs were menial and unrelated to the students' careers.

The cooperative method of education made sense at that time, but the present day environment facilitates the growth and acceptance of work/study programs if properly presented. Today the students and educators are deeply concerned with the relevancy of curricula content. Education for education's sake is no longer acceptable. Employers have their concerns about the relevancy of education, not only in the criticism of curricula content but also the lack of knowledge by faculty and students of the reality of the world of work.

The work experience segment of cooperative education has real merits, but it is the part which is most difficult to manage and understand. The jobs are outside the sphere of education and are subject to influences from a different environment than education. The differences are sometimes difficult for education to accept, and this causes considerable frustration and consternation.

College cooperative administrators must be aware of the pressures that exist in the various businesses and industries within their jurisdiction and plan their strategies to meet the problems in each of the organizations. To an employer, participation in the cooperative venture must make good business sense.

Unfortunately, there is a scarcity of factual information to illustrate the contribution of cooperative students to the business enterprise. There are many generalizations on the value of cooperative education, but unfortunately, there is a lack of documentation which is necessary to convince businessmen to commit themselves to the program. Some of these generalizations which require further research are:

- Cooperative students are more loyal and their job turnover rates are lower.
- Cooperative employers get higher yields for permanent job offers than other college graduates.
- Cooperative graduates progress faster and further than non-cooperative graduates.

There are many apparent advantages to an employer which, if translated into factual data, would be more effective:

- Makes available eager and enthusiastic employees who are productive.
- Gives continuous job coverage.

- Provides opportunity for early evaluation.
- Identifies with the business.
- Serves as a goodwill ambassador on campus.
- Reduces training time after graduation.
- Reduces recruiting expense.

The cooperative education movement has given insufficient attention to its specific values to the employer. A great deal of information exists on its value to a student, to an educational institution and to the educational process itself. Over and beyond the altruistic value of participating in the development of young people and generalizations, there must be developed more precise reasons as to why employers should participate.

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JOSEPH F. BUGEIA - Ford Motor Company

To each of the participants at this conference the phrase "cooperative education" can have a different meaning, depending on an individual's frame of reference. To the school coordinator, "cooperative education" can mean:

- A voluntary or involuntary work/study program.
- An honors program.
- A method to reduce the number of students on financial aid.
- A way to increase school visibility in the community.
- A method of providing students with a blend of the practical and theoretical.
- A way to attract students to your campus.
- An organized approach to summer employment.

Whatever the reason, or combination of reasons, the manner in which the coordinator goes about the job of placing students is affected.

On the other side of the equation stands the employer and his frame of reference. ("Why") of "cooperative education" can include:

- A need for extra help.
- A concern to do a social good.
- An interest in developing individuals for specialty type jobs.
- A method of recruiting students for careers with the company following graduation.

The matching of the school's frame of reference with appropriate employ-

er's is necessary if a mutually productive and lasting association is to be maintained.

Now let's look at Ford Motor Company and its "Why".

A study conducted by the Company in the early 1950's indicated a shortage of technical college graduates during the 1955-1970 period. Cooperative education represented a sound way to increase the number of technical graduates with potential that Ford could have the opportunity to hire. Objectives established for the program were:

- To recruit high-potential cooperative students pursuing technical degrees,
- To provide the cooperative work assignments that :
  - Make use of student's academic training
  - Assist student's development,
- And to retain as many as possible as permanent employes following graduation.

Our beginning efforts, to say the least, were quite modest. In 1954, a total of four cooperative students completed the program, and three accepted permanent employment with the Company. The program grew slowly but steadily through the balance of the 50's, as management became more knowledgable of the value of the cooperative student, and as new areas and positions for cooperative students were identified.

It was in the '60's that we began to hit our stride. In 1960, 41 cooperative students completed the program; in 1962, 81; 168 graduated in 1965; and in 1969, the biggest group of graduates ever, 218.

During the period 1960 through 1971 the program generated a total of 1,661 graduates. Of that number, 1,444 were made job offers, and 959, or 57.7% accepted employment with the Company.

Looking at our results another way, since 1960, 66.4% of the cooperative students who received an offer at the time of their graduation accepted permanent employment with the Company. This compares most favorably to the acceptance rate of 55.8 for graduates recruited for the Ford College Graduate Program during the same period.

The Ford College Cooperative Program has met the objectives we established for it. As Ford approaches its 20th year of association with cooperative education, it can be said without hesitation, "Why cooperative education -- it works!"

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DEAN LOMMAN - 3M Company

The environment, permissiveness, crime, consumerism, and many other problems are emerging as serious social challenges now and in the future. However, there is one problem which has received little attention but can seriously affect our whole social structure. This is the problem of human mobility, especially with the young. Freeways, autos, ease of air travel, corporation moving people, affluence, job boredom, etc., have all helped create a "rootless society." American industry has relied on a work force

which can be trained in many specialities which, in turn, has improved production, efficiency, and product stability. With the advent of our rootless society, the basic family unit is in jeopardy and, consequently, so is our work force. Additional time, money, and manpower will be mandatory if we are to keep our rootless society at minimum productivity levels.

There are many things that we can do to combat this very serious problem. One way is to expose our younger generation to the world of work at high school and college levels. This exposure during the formative years will go a long way to achieve a stability in our work force.

An established, highly regarded integration of classroom work and practical experience is, of course, the Cooperative Education Program. I've talked about a future problem and what part the Cooperative Program can play, but let me discuss the additional Employer "Whys" of Cooperative Education.

We have found the program to be an excellent source of permanent manpower. Speaking only of 3M, we have offered about 70% of our cooperative students and 80% of these have accepted. Many of our divisions are considering utilizing the program as a significant source of manpower.

The student can be thoroughly grounded in company practices and organization while in formative stages. Many students have idealisms which are contrary to business practices. The program gives the student an honest, realistic, and practical approach to business.

The infusion of bright, young people, fresh from an educational environment can provide new ideas and viewpoints which can be stimulating and refreshing. A Purdue CHE recognized a production problem. He then designed, developed, purchased, and installed a film measuring device which saved the company over \$60,000 annually. Another student developed a system to reduce shrinkage in "addent," a filling material for teeth. Still another advertising cooperative master-minded and directed a corporate program on improving company wide austerity objectives which proved to be a tremendous success.

Many projects are of short term variety. A cooperative student can be given these projects and take them to completion. In most cases the student experiences challenge, meaning, and exposure to business.

A cooperative student serves as a "goodwill ambassador" with faculty and other students. Students who have good experiences with an organization do more to improve the company image in the eyes of the students on campus than all the publications and advertising combined. The contrary is also true. Poor experiences can damage a company's reputation so rapidly that it might take years to improve.

It appears that we have an ever widening separation between academia and industry. With some exceptions, little has been done to enhance the industry-college relationship. The Cooperative Program has done as much to narrow the gap between industry and the college as any other program. Just as students can test theories they learn on campus against the cutting edge of the market place, so can the faculty members who propound those theories. Faculty members do this through visits with cooperative employers and through review of the work reports of the students.

The Cooperative Program provides us with a low-cost training program

since the cooperative student generally earns a salary which is below the average salary paid to a new graduate. He more nearly earns his salary in the early stages of professional employment because he will contribute to the overall goals of the group earlier.

I've discussed just some of the employer "whys" both current and in the future and I hope I've conveyed our enthusiasm for the Cooperative Program as we plan to expand our participation in the technical and non-technical areas.

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WILLIAM E. WEISEL - Cincinnati Milacron, Inc.

What is the employer's stake in Cooperative Education? How does an employer justify having a Cooperative Education Program in his organization?

Cincinnati Milacron, Inc. is a leading manufacturer of machine tools and related equipment. The corporate work environment is one of involvement in sophisticated manufacturing systems and technical supporting equipment. While the following comments are made from that viewpoint, they are appropriate to most industries, businesses, and governmental agencies; with minor adjustments in those words that are affected by the product or service rendered.

Listed below, are a number of objectives that are very well met at Cincinnati Milacron by the cooperative program. These objectives are listed in alphabetical order, and their importance will vary within different segments of the corporation and at different times. Obviously, each cooperative employer needs to give attention to those objectives that are to be met within the organization. Some of the points listed below will not be appropriate in one type of organization and in another, there obviously should be additional objectives set up. However, this does give a point from which to evaluate the situation. Partial list of objectives for having a Cooperative Education Program:

- Build image (Products-Company-Industry).
- Build knowledge of manufacturing processes (or other).
- Contribute to community well-being.
- Contribute to educational process.
- Good educational relations.
- Long-range recruiting.
- Motivate present employees.
- Production.
- Short-range recruiting.

The amount of time and effort spent in planning, executing and following up on a cooperative program will directly affect the manner in which the objectives are met. The benefits in these areas can be outstanding if the

program is well thought-out, administered with sincerity, and with firm commitment. On the other hand, the objectives will produce very negative results in the event the program is not properly handled.

For example, take the first objective listed above--Build Image. The type of image that is built will be a direct function of the type of experience that a cooperative student has during the work section. If the program is good and the cooperative student's experience is meaningful, the cooperative student will become a good salesman for the organization while on campus or during contacts in other areas. If the cooperative experience has been a poor one, the cooperative student will not do your organization any good in future conversations about the cooperative experience.

A meaningful cooperative experience can be most effective in spreading the image of the organization's products or services; such as type, scope, quality, status, etc. Increased knowledge about the organization will be spread to the cooperative student's faculty contacts, school administrators, other students, friends, neighbors, and perhaps even some customers.

Each cooperative employer will have to evaluate the advantages or disadvantages of image building and how it relates to Cooperative Education. In some organizations, it will have a very high priority and in others will have almost none. Each of the objectives listed above could be discussed in great detail, but it seems appropriate for you to review them based on how they affect your organization.

An employer needs to give serious thought to the objectives to be met when setting up a Cooperative Education Program. Unfortunately, a number of objectives that are met by Cooperative Education are intangible and difficult to measure on a profit and loss statement. For example, at Cincinnati Milacron, we are thoroughly and completely convinced that Cooperative Education has been very beneficial and has contributed substantially to the continued growth of our corporation. On the other hand, we have been unable to realistically determine the ratio between the cost of Cooperative Education within our corporation, and the productive benefits received.

It seems obvious that each potential cooperative employer should take a serious and detailed look at the long-range potential for becoming involved with Cooperative Education. One excellent first step is to have discussions with other employers who have had experience with Cooperative Education, and with cooperative directors at various colleges.

Our opinion at Cincinnati Milacron is "try it, you'll like it."

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JOHN L. CAMPBELL - Union Carbide Corporation

I have been very much interested in cooperative education for more than half of my 40 years with the Linde Division of Union Carbide. Until about five years ago, it was as a Production Manager. Then, my activities were given official sanction and I expanded my efforts to the entire Linde Division. During the past three months, I have been making a survey at other companies who have had successful co-op programs over extended periods of time. The purpose of my survey is to gather pertinent information which will be used in promoting cooperative education throughout all Divisions of Union Carbide.

Everything I have learned thus far substantiates my long held opinion that a good co-op program is the very best recruiting "tool" a business organization can have. There are many reasons for this which I will proceed to explore with you.

First of all, participation in the cooperative venture must make good business sense. Otherwise, it would not have enjoyed the phenomenal growth it has over the years.

Cooperative education exposes the student to the most current and progressive practices and principles in the student's field. It helps to develop the self discipline that will make him or her successful in the business and industrial world. It exposes the student to the types of personality with whom he or she must work if the desired goals are to be accomplished. It builds self confidence by permitting the student to compare himself or herself with others in actual working situations and determining that he or she is capable of meeting the demands that will be placed upon him or her.

There is no doubt that it equips the student much more quickly to take his or her place within a company and perform productively virtually from the start of the full time employment.

These are real benefits which produce real return in terms of dollars and cents. In these days when productivity is being stressed in so many areas, co-op experience tends to eliminate or sharply reduce the training period before a new employee becomes a fully qualified member of the work force.

Evidence of experience over the years demonstrates that participating students are very productive during their career learning assignments and that faculty members at participating schools frequently modify classroom activities to make educational programs more relevant to the needs of the employers.

Cooperative education helps students discover a work in this world that is really worth doing; the kind of work for which they are willing to continually make the sacrifices of time and effort so that they can do that work ever more effectively and efficiently. Generally, students bring a fresh inquisitive eagerness to their assignments that profoundly challenges the imaginative qualities of supervision. This is good in having the effect of keeping first line supervisors on their toes. Cases have been reported where the supervisors have been known to become so dependent on the co-ops that it is with the greatest reluctance that they release the students to return to their respective campuses.

Frequent interviews with the students by his immediate supervisor and others during the work assignment bring assurance of any helpful changes that are taking place in the co-op program. That which was vaguely heard in the classroom begins to take on new meaning as the work assignment develops. Careful communication pays an additional dividend: the student returns to campus eager to share his new knowledge with his peers and professors.

Occasionally a student does poorly in an assignment. There are many reasons for this, including hidden disappointments at what he or she has been given to do. However, if the students can be persuaded to discuss any dissatisfaction very early in their assignment, the problems

can usually be corrected.

Youth, of course, is a time of idealism and co-op students sometimes tend to approach a job with the idea that every minute of every day must be exciting, meaningful, and productive. It is a rare work situation that is consistently stimulating, and unfortunately, a period of unhappy adjustment must be suffered by many a student and his employer.

As mentioned previously, cooperative programs provide an excellent opportunity for the student to gain practical work experience in his major field of study. The good assignment will often serve to be the turning point of the student's life in determining his future. For the employer, assignments have served as a valuable recruitment device.

Employers and co-op educational students need each other. Each needs to be flexible and have a good understanding of the other's problems if the co-op program is to fulfill its complete potential of benefit to the student.

A good co-op program can be effective in enhancing a company's public image. Increased knowledge about its products will be spread to the co-operative student's faculty contacts, school administrators, other students, neighbors, and friends.

Not too many other companies have up to date figures on the percentage of co-ops who come with them after completing their co-op work periods. However, all the representatives to whom I have spoken, have estimated the figure to be between 70% and 90%. In Union Carbide the figure is higher than 80%.

This brings us to the important item of retention rate. We made a survey in the Linde Division Production Department for the five year period of 1965 through 1969. It disclosed that our retention rate for co-op graduates was 83% while for employees without previous part time experience with us the figure was 55% which was at that time about the average for all industry.

In the survey I have been making in other industries, I learned that one company presently has several hundred cooperative trainees and plans to increase that number. Also the following top officials of that company are co-op graduates: President, 2 Group Vice Presidents, and 10 other Vice Presidents-General Managers. They estimate that a large majority of supervisory personnel at all levels to be co-op graduates.

All of the other companies I have already surveyed have told me that they realize that campus recruiting will have to be continued. However, they all are hopeful that their increased use of co-op programs will permit them to avoid expanding campus recruiting activity to the tempo reached a few years back.

## How Employers Select Cooperative Students

JOSEPH F. BUGELA - Ford Motor Company

The coordination of all college cooperative recruiting activity within Ford Motor Company is the responsibility of the Personnel and Organization Staff, located at the corporation's World Headquarters. When the staff receives a request from a Company component to hire a cooperative student, the following factors are determined:

- Organizational location of opening (corporate staff, division office or plant location).
- Type of cooperative opening to be filled (technical versus non-technical degree).
- Minimal grade point requirement.
- Geographic location of assignment.
- Timing of opening. (When will student be required to start; will an alternate be required?).

Based on these factors the following steps are taken:

- Identification of a school/college in the area offering type of degree/major desired, and having an appropriate academic calendar to meet timing requirements of opening.
- Contact school to list opening, and gain agreement on method of handling referrals and time involved.

When candidate applications are received from the school they are reviewed to determine the following:

- Have requested degree/majors been provided? If not, is there an explanation from the coordinator?
- Does the area of interest identified by the student match the opening?
- Academic year in school.
- Number of work periods available.
- Date available to begin work (and return to school).
- Any previous work experience?
- Geographic preference, if any.
- Projected graduation date.

The files of candidates meeting position requirements are forwarded to the component for review. Based on component's review of files, offers or personal

interviews are extended. Candidate files which the components are not interested in are returned to Personnel and Organization Staff for possible referral to other Company activities.

The school is notified of the disposition of each file, generally within ten working days following receipt of the application by Ford Motor Company.

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DONALD E. IRWIN - General Electric Company

The General Electric Company is a decentralized organization and the selection of cooperative students is accomplished by the individuals who will employ the applicants in their operations. Consequently, different methods and procedures are used.

Some educational institutions conduct regular interviewing sessions and interested departments will send representatives to identify candidates for the open positions. Many of our personnel specialists are or become personally acquainted with coordinators in the cooperative colleges and through this channel candidates will be recommended by the coordinators. This method works best when the coordinator has visited the operation and has firsthand knowledge of the requirements.

Another method is somewhat happenstance. A student or a coordinator may initiate a contact without any indication of an available position. This occurs when a student desires a job in a certain location or when there is a surplus of students available or a particular student loses his cooperative job.

There is a lack of written procedures in the selection method because of the close personal relationship between the institutions and the department personnel. Formal procedures are very helpful to insure meeting the objectives of a cooperative program and provide a continuity with a change of personnel. The selection criteria are based upon the present available position, but they also should represent the objectives of the total program, such as developing a candidate for a permanent position. Thus the selection procedures are most important, for they determine success or failure of the program for the student as well as for the employer. Without a thorough understanding of the total qualifications, both by the company representatives and the coordinator, disappointments will occur.

No student should be maintained on a job if he does not continue to perform satisfactorily. To do so negates the value of cooperative participation by the employer. Situations like these can be minimized by written job analyses and employment specifications to be used in the selection process. Mismatches will happen, but they will be largely due to changes in the career aspirations of a student and not a lack of other qualifications. In cases of this kind, the employer's cooperative program should be flexible to allow for a change in the nature of work.

Selection criteria and procedures should, therefore, be established and documented to avoid misconceptions by all parties and thus contribute to a well organized cooperative program.

L. L. KNICKERBOCKER - Detroit Edison Company

METHODS OF SELECTION

Interview

The interview is designed to perform two functions:

- To determine the relevance of the applicant's experience and training to the demands of a specific job.
- To appraise the applicant's personality, character and motivation.

Interviewer

The interviewer must be able to acquire relevant information and must know how to interpret the data he or she has obtained.

Medical Examination

- A physical examination must be successfully completed before an applicant can be assured of employment. The examination takes place after the applicant has been accepted by the employing department. The applicant should not submit his or her resignation to his or her current employer prior to the examination.
- The requirement for a pre-employment physical examination has been established to protect:
  - The Company from unwarranted risks.
  - Other employees from communicable diseases.
  - The applicant from being placed in a job with greater physical demands than he or she can handle.
- Standards are established by the Medical Department. In certain cases, Employment may waive medical rejections.

Reference checks

- Previous work records for all prospective employees must be checked to obtain an accurate account of their past work history. All companies where the applicant was employed within at least the preceding ten years or since high school graduation are checked.

Fingerprint Check

- All new employees other than minors under 18 years of age are subjected to either Michigan State Police or City of Detroit Police fingerprinting as a condition of employment.

SELECTION FACTORS

Education: Course of study, specific courses, extent of training; Grades - trends and the specific courses; Subjects of major interest; Subjects of minor interest; Extra curricular activities - leadership, teamwork, and honors; Future educational plans; Military training.

**Work Experience:** Duties and responsibilities of former jobs and progression; Reasons for leaving former positions; Skills obtained; Evidence of relevancy; Military skills; Evidence of leadership; Personal relationships with others; Attendance and punctuality.

**Evidence of Interest in:** The Company; Job interest; Outside interest - sports, hobbies; Maturity; Career goals.

**Other:** Appearance; Job objectives; Responsiveness; Self-expression; Applicants personal view of his strengths and weaknesses; Specialized skills, licenses, record, admitted health problems; Tact; Adaptability; Initiative; Follow-through; Self-confidence; Hard worker; Aggressiveness; Conscientiousness; Honesty and sincerity.

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**DEAN LOMMAN - 3M Company**

The selection of students into our Cooperative Program is based on two general criteria. One is the needs of company and the other is the quality of students available. Each year the Cooperative Coordinator determines the number of students leaving the program, the needs of the divisions, curriculum desired by the divisions, and divisional financial forecasts. The results of this data are analyzed and the number of hires by discipline is determined.

Obviously, the most important factor in cooperative student selection as far as number is concerned is the availability of qualified students. Cooperative interviews are not unlike interviews for permanent employees. We still consider appearance, intelligence, expression, work experience, etc. However, consideration must be given to these items relative to high school and one or two years of college.

Most of our cooperative students are technical, so one area which is examined closely is the student's motivation toward the technical areas. These can, in many cases, be determined by the student's interest. Does the cooperative tinker with his car? Does he have technical hobbies such as ham radio, model building, etc? Is he from a primarily agricultural background? It is felt early motivational patterns tend to continue into secondary education and beyond.

Location can be a factor when considering a student over a few hundred miles from his work assignment. Travel, living alone, ties with parents, etc., can be a definite factor in the selection of a cooperative student.

Future goals of the student can play a significant part in the selection process. It is very difficult for students to portray specific long range goals but general future objectives can give an interviewer good insight to the student's motivational pattern.

There is no selection method that will insure cooperative success; however, the interview, faculty recommendation, and needs of the company are the significant factors in the cooperative student process.

WILLIAM E. WEISEL - Cincinnati Milacron, Inc.

The selection of a cooperative student follows a large amount of prior planning and attention to details. While the first step seems most obvious, it is one that is frequently given inadequate attention. A cooperative employer must carefully determine requirements and objectives for a cooperative program. Among some of the considerations are:

- Long-range needs (four to five years or more).
- Short-range needs (immediate).
- Type majors: Engineering--ME, EE, IE, etc.; Business Administration--Marketing, Marketing Research, Accounting, etc.; Liberal Arts--Chemistry, Math, English, Social, etc.
- Degree level: Associate, Bachelor, Master's, Doctorate

Of course, each of these determinations will depend upon the type and nature of the business and each employer. For example, there will be a vast difference in the requirements of a large manufacturing-type industry, such as Cincinnati Milacron, compared with a small bank or financial organization.

Each employer must set up good working relations with the school's cooperative coordination department. It will be most effective if this is done on a personal basis at the school location. Following the guidance and advice of the school coordinator is an invaluable aid in the selection process. It will be well to have the school coordinator actually visit the cooperative employment location, so that the coordinator has a better understanding of the environment and conditions that will be met by the cooperative students.

The selection process will vary from school to school and from employer to employer. In any case, the employer needs to become well acquainted with the procedures used at each school.

Some employers prefer to have the school coordinator make the selection, while others prefer to select the cooperative student from a group of candidates. In some cases, it will be appropriate for the employer to visit the campus and interview prospects there. On the other hand, it is often better for the potential candidates to visit the employer's site, and be interviewed at that point. Each employer will have to determine the best procedure for his individual situation, that will best serve the employer, the school, and the student.

The employer will probably want to use the same selection criteria in the selection of cooperative students as with the selection of any other employee. The employer should not lose sight of the fact that there may be competition for an individual, and that the student may be doing some selective interviewing also.

The employer may also want to pay attention to starting the selection process at the high school level. There is much to be said for finding the right individual in high school, and then motivating the student to participate in cooperative education after enrolling in college and joining the employer as a cooperative student.

In general, the selection of cooperative students should not differ vastly from that used by the employer in selecting other employees. Perhaps the most important aspect is that of getting a thorough knowledge about the cooperative program at various colleges, and learning in detail how the cooperative coordinators wish to operate. Continuous and effective communication is a must.

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NANCY BALOG - The J. L. Hudson Company

The student's first contact with an employer may be through a number of different channels; college recruitment; referral; "walk-in", or resume. Whatever the route is, the important thing to keep in mind is that the old saying of first impressions being the most lasting is very true.

A student guide to "psyching out the interviewer" would go something like this: Let's start at the beginning--with the resume or application. Make sure that is as complete and informative as possible without being a doctoral dissertation. This may seem like a contradictory statement; but keep in mind that an employer may receive 50+ resumes a day and if one says it all in a page or two, another in six or seven, guess which one he will read thoroughly.

You have passed the resume hurdle and an appointment has been set up. Some general rules to follow:

1. Be on time!
2. Dress the part! (You are going to a job interview, not a football game)
3. Don't worry about being nervous; an experienced interviewer will put you at ease in two minutes.

Be as complete and informative in the interview as you were with the resume. One change from the resume rules; this is not necessarily the time to be concise. One word answers with no elaboration do not give the interviewer much more information than that piece of paper he has in his hand. Know what you want (or at least generally what you want). Nothing turns an employer off faster than to hear, "I don't really know what I want. I thought you could tell me what you have available".

Be prepared to answer questions like:

- "What are your strengths?"
- "What are your weaknesses?"
- "Why did you apply here?"
- "What are your career goals?", etc.

There is one answer that surpasses "I don't know what I want to do" in terms of not impressing anyone. Never say, "I applied for this job because I like to work with people". If the interviewer asks you to name even one job where you don't work with people, you're stuck. (Hermits excepted.)

If you're not familiar with the company, research it if at all possible. Ask any and all questions that you need answered in order to make a decision. After all, you're doing some selecting, too.

Some of the basic qualifications that you will be judged upon are:

- Willingness to work in the area where the business is located. (Are you primarily looking for a position in another part of the country? Do you want to work in Detroit?)
- A course of study which has some relation to the business. Grade point average should be satisfactory. (Things taken into consideration that could affect the GPA would be: do you work? are you involved in campus or community activities? do you have a family?)
- Are you an individual who has worked before, particularly in a group setting? Few employers wish to be an individual's first exposure to the business world, especially for the college graduate. The summer and/or part time jobs need not be in the employer's field, but a student who has worked generally needs less "business world" exposure.
- Have you been involved with group activities, whether it is a club or fraternity on campus, or a community group. Again, this type of student has usually had "people" exposure.

Above and beyond the statements mentioned, again most employers will be impressed with a student who knows something about the business and the job for which they are interviewing. They look for aggressive, confident people who appear to be ambitious and wish to succeed, and who are willing to learn.

You will be selected if you have the intellectual, scholastic and personal qualifications for the business; if you appear to be the aggressive, competitive, figure-oriented, flexible, innovative and hard-working individual who would do well.

If the employer goes to the time and expense to recruit for college graduates, he is looking for people who can move rapidly, not "career" middle management types. Prove to him that you fall into this category and your chances of receiving an offer are greatly enhanced.

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JOHN LEWIS - Detroit Bank & Trust

We consider the acceptance of our organization's offer by a co-operative education student to be the beginning of a career with us. Though the continuity of career employment may be interrupted by periods of school attendance, the student's on-going relationship with our organization in terms of professional development is not disturbed. It is for this reason that selection standards for a cooperative student are as rigid as the selection standards for each of our organization's entry-level professionals.

Therefore, in evaluating a cooperative prospect, our employment specialists use the same criteria as in the evaluation of a bachelor's degree prospect. Namely, we consider major courses studied, academic achievement, activities and interests, work experiences and communication skills.

Our organization actively recruits liberal arts majors as well as business students for cooperative employment. The preparation received by a liberal arts student lends itself to the business community. Often-times, the liberal arts student is project-oriented, a problem solver. The business student's academic background, of course, has developed particular skills necessary in our organization: accountancy, personnel administration, etc.

Academic achievement as reflected by grade point average, honors college, Dean's List and scholarships, is important to us when reviewing a student applicant's credentials. Academic achievement along, though, does not make a good employment prospect.

Other than being academically qualified, the student who desires co-operative employment placement with our organization must show organizational skills - the budgeting of the student's time for clubs, activities, outside interests on and off campus is considered.

A student's work experiences, most times limited and unrelated to our organization, are also considered. The jobs held are not as important as the applicant's ability to relate his learning experiences from the work situation.

Indeed, it is the applicant's ability to communicate with our organization's personnel specialist, relating easily and self-confidently about his experiences, that sells the student in an interview with us. The nature of our business demands daily contact with customers as well as co-workers; good communication skills, therefore, are essential.

After an initial successful interview with us, a student applicant would be invited by letter to once again talk with our personnel specialists and take a short battery of personnel tests. Following testing of all applicants for cooperative placement, an invitation to join our organization would be extended to each student we would like to have make a career with us.

### PART III. THE SCHOOL AND THE EMPLOYER

#### Recruiting Employers

ROBERT L. BROWN - W. W. Holding Technical Institute

We must all realize that regardless of how much or how well we plan any new cooperative program, the program can be no better than the employers that agree to join with us in the venture. Even though we like to think of ourselves as "educators" and "implementors" we have to realize that one of the major aspects of being a cooperative coordinator requires that we be "super-salesmen", not only to induce students to "go co-op" but to show employers the value of joining with our institutions in programs of cooperative education.

In order to provide our students with placements that relate closely to their career choices, we must be aware of the types of experiences that various companies can provide. This would indicate a need on the part of the coordinator to study as well as identify potential employers.

There are many sources for identifying potential employers that would be of use to coordinators. For programs in engineering and business we should look to the "trade papers", i.e. Computer World. These publications are readily available to you through subscription and provide an excellent source of companies seeking employees. It will at times tax your ingenuity to sell an employer on the value of cooperative education when he is seeking permanent employees, but at the same time if he is having enough problems in locating employees that he has to advertise in trade papers, then he may well be receptive to a long range plan that would assure him of a constant supply of trained manpower. I have found that many faculty members subscribe to these papers as an outgrowth of their professional organizations.

A similar type of publication that could provide leads is The Wall Street Journal. Not only will the Journal provide you with leads to potential employees but regular reading will keep you abreast of the economic trends taking place within industry. This awareness will give you an indication as to what type of industries are likely to be expanding which will in turn lead to more job placements, both permanent and cooperative.

The Civil Service Commission keeps records on cooperative opportunities within the Federal Government and will provide you with a list of agencies that employ cooperative students. However, I would not offer you as two-year institutions any great degree of hope in placing your graduates with a Federal Agency. It seems that the policy of the Commission, or agencies, is to discriminate against two-year institutions in favor of the four year schools.

A source of potential cooperative employment is the listing found in College Placement Annual. A number of institutions use this publication with the feeling that if a company is planning to recruit full time employees from the colleges and universities, they will also be interested in cooperative education. One word of caution would be that the publication is geared more for the use of the four year institution. However, if a company needs engineers it stands to reason that they also need technicians.

I strongly suggest that you become an active member of the American Society for Personnel Administration (ASPA). Membership in this organization would put

you in constant contact with the personnel administrators in your community. If you are from a community that is not large enough to have a local chapter, then I suggest you join the one nearest to you. It may be 50 or 100 miles away, but the contacts would make the extra miles worthwhile.

In taking a look across the nation we find that many more states, through their personnel offices, are getting on the cooperative education bandwagon. If you have programs that you feel would be of interest to agencies within your state government, I suggest you refer them to the State Personnel Department of North Carolina and Florida for answers as to how cooperative education works in State Government.

Other sources that are available are your local government offices, the State Employment Security Commission, want ads in the newspapers, and local Chamber of Commerce. After identifying and contacting the potential employer we must sell him on the advantages of employing cooperative students. The opportunity to observe two individuals in one position, the opportunity to sell his company to qualified potential employees, the opportunity to have a continuing source of trained manpower, and the opportunity to have an influence on the educational process.

Cooperative education must be "sold" to the employer. To do this you as a coordinator must know the company, its policies, goals, and needs; for your programs are non-existent without him as a partner.

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JAMES T. GODFREY - Virginia Polytechnic Institute

Institutional Directors and Coordinators of Cooperative Education--especially those that are new in the field--should realize that a most important aspect of this business (probably the most important) is the recruiting of employers--the establishment and maintenance of long-term relationships with a group of employers that is large and varied enough to provide educational work experiences for the students involved in the Cooperative Education Program. Not only should the variety of employers be broad enough to provide study-related experiences for each academic discipline offering Cooperative Education, but also for each specialization within these disciplines. For example, the range of opportunities for Cooperative Education students majoring in Electrical Engineering should include electrical power systems, electrical machinery, electronics, communications, automatic control systems, digital and analog, computers, etc.

An excellent source of leads for potential employers is the College Placement Annual, published each year by the College Placement Council, Bethlehem, Pennsylvania. This publication is made available to all college and university placement offices. It lists those employers who are planning to recruit college graduates during the current year. In general, those employers who plan to hire graduates in specific fields are more likely to be interested in hiring cooperative students in the same academic disciplines. In other words, there is, normally, a high correlation between graduate hiring and cooperative hiring; hence, the value of the College Placement Annual.

The Wall Street Journal is another good source of employer leads, in a more general sense. Regular reading of the Journal will keep you up to date on general economic trends and planned expansions in various types of industry and specific companies; and the Want Ad section will provide clues on what companies are likely to be hiring graduates and/or cooperative students.

The U. S. Civil Service Commission keeps records on federal government participation in cooperative employment. For a list of agencies that hire cooperative students, and the names, addresses, and phone numbers of the Agency Coordinators, write or call: Office of Youth Employment Programs, Bureau of Recruiting and Examining, U.S. Civil Service Commission, Washington, D.C. 20415 (202) 632-5677. For opportunities in state, county, and city government agencies, you should seek out and get acquainted with appropriate officials in your geographical area.

Other sources that might be explored are Chambers of Commerce in the cities where you wish to place cooperative students, the Want Ad sections in local papers, and the Alumni Office at your institution. Many alumni are in positions with private industry and government where they could either help to promote cooperative participation with their respective employers and/or hire students in their own organizations.

It is especially important to promote long-term relationships with employers. A successful, on-going Cooperative Program needs an adequate array of work opportunities "now", next year, five years hence, etc. Employers that are considering participation for the first time should be encouraged to establish "billet(s)" for Cooperative Training Budgets and provide budget and planning for these billets year after year. It is the responsibility of the institutional Director/Coordinator to establish this aura of permanence about the Program--the feeling that the school and the employer are embarking upon a mutually-beneficial venture that will continue and grow over a long period of time. Toward that end, the employer should understand the institutional Cooperative Program policies--especially the rules and regulations for students that are designed to protect the school-employer relationships.

You should meet prospective (and active) employers more than halfway. Let them know that you expect your students to be productive at the same time they are learning. One of the major enticements for employers is, of course, the prospect of more efficient and better recruiting of college graduates--the opportunity to thoroughly evaluate prospective professional employees before permanent commitments are made. This part of the appeal seems to be well understood. Although it should certainly be pointed out to prospective employers, perhaps more emphasis ought to be placed on the point that Cooperative students also do productive work. They are expected to "earn their keep", abide by the employer's policies and regulations. It should be emphasized to employers that Cooperative students are not to be treated as prima donnas.

Another part of the "pitch" to prospective employers ought to be the promotion of the "industry-education partnership" concept--pointing out the opportunity for employers to actively participate in the process of higher education, possibly to the point of affecting curriculum planning (directly or indirectly) in ways that would better prepare graduates for employment in that particular company and industry.

It is also the institutional Director/Coordinator's responsibility to establish and maintain effective communications with prospective and active employers. The employer should designate a person to be responsible for the

hiring, internal assignment, and professional development, of Cooperative students. This person might also be called a Director of Coordination, and he is the person that the institutional Director/Coordinator should get to know well. Continuous contact should be maintained through telephone calls, letters, newsletters, and personal visits. In this way, the institutional Director/Coordinator can (and should) become familiar with the employer's products and procedures, the broad picture of the industry, economic and employment trends, and--especially--the opportunities available for Cooperative students within that employer's organization. In Cooperative Education, not only is "one picture worth a thousand words," one plant tour is worth a thousand pictures and ten thousand words when you are trying to relate employment opportunities to prospective Cooperative students.

In summary, the first and great commandment in Cooperative Education is "KNOW THY EMPLOYER", and the corollary to this is "let him get to know you." The second commandment is "HONOR THY EMPLOYER" -- that is, try to see the Cooperative Program from his view; and design your policies, and operate your program, with your employer's motivations in mind.

Finally--we must always remember that Cooperative Education is not possible without employers.

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GEORGE H. MILLER - University of South Florida

Recruiting employers is one of the most important areas of work for the cooperative education staff, especially where the program is just starting up. It is advisable to recruit employers before starting to recruit students.

When starting a program, where do you start in such recruitment:

**Local employers**

- Members of the Chamber of Commerce Industrial Committee
- Retail Merchants Association
- City and County Agencies
- Local Federal offices and local State Government offices
- Non-Profit Agencies, other than government, such as United Way, Red Cross Boy Scouts, etc.

**Outside Local Area employers**

- Federal Agencies in Washington, D.C., as well as regional offices for your region
- Utility companies which cover large areas...they may not have a major operation in your area even though they serve your area. Go to their home office to discuss cooperative placement.

- State Agencies of your state and even nearby states. Does the agency have a policy on cooperative education, such as the State of Florida has? Make use of it if it does. Check with personnel office of the State or individual agency.

**Get a collection of Idea Books**

- Local Industrial Directory - Contact all that have more than 50 employees.
- State Industrial Directory - Contact those with 100 or more employees.
- Phone books of major cities in your region, see Yellow Pages for major employers.

**Meet Employers Face to Face, Handshake to Handshake**

- Attend International Conference of the Cooperative Education Association. Plan ahead and contact a minimum number, at least 8 a day.
- Attend your regional Cooperative Education Conference and make similar contacts to above.
- Set up your own conference, have your president or vice-president, or dean extend invitation to those who you wish to contact. Have visiting Cooperative speaker or consultant tell story to assembled group.

While the above ideas all take, to a great degree, much follow-up by letters, and wherever possible by visitations, the phone is good for communications also. Most important is a budget that will permit coordinators to travel, make phone calls, and have proper secretarial support.

In preparing to recruit employers first prepare some sales-piece, a small brochure, or page of printed literature, that you can mail, leave on visitations, or have available if they visit your office, which will briefly describe the program. Have such material sprinkled by statements of other employers who have found cooperative education a worthwhile program.

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**W. A. STULL - Virginia Department of Community Colleges**

Essentially my presentation this afternoon is divided into two major parts which constitute what I consider to be conceptual approaches designed to insure that cooperative education students have a valuable learning experience while participating in the cooperative phase of the college's educational program. Both approaches have in common the need to insure that students' cooperative education experience is more than just a "job". Both have in common "learning" or "change in behavior" as their goal. The two approaches I would like to discuss briefly with you this afternoon are:

- Working with employers to develop individually tailored in-firm training programs/activities for cooperative education students.
- Utilizing learning objectives (stated in behavioral and measurable terms) for cooperative education students.

The first approach requires that the cooperative education coordinator be able to either adapt or modify existing in-firm training programs to the college's cooperative education program, or that he develop in consort with the employers an on-the-job training program appropriate to the needs of cooperative education students. Many national firms with whom you will be working have fairly extensive in-firm programs already established and operational. In this instance it is not difficult to adjust these programs to the cooperative education program of the college. The majority of firms (smaller businesses and industry), however, do not have any form of in-firm formalized training programs. The cooperative education coordinator's role under this condition thus may become one of facilitating the development of an in-firm training program appropriate to the needs of the firm and the cooperative education student(s).

The second conceptual approach is basically an individualized program for each cooperative education student where the student and the employer, with the coordinator's assistance, establish behaviorally stated goals for each student for each work period. The coordinator's role under this approach is primarily one of assisting students and employers to arrive at behaviorally stated objectives which are valuable, realistic, and measurable. Students' quarterly or semester evaluation is then based on whether or not these mutually agreed upon objectives were accomplished and to what degree they were accomplished.

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#### Comparison of Students' and Employers' Needs

##### S. B. COLLINS - Drexel University

Needs of students and requirements of employers are the heart of the process of cooperative education. The importance of recognizing the fact that students have certain objectives in taking a cooperative program and meshing their employment with employers who have their own set of objectives cannot be underestimated. To bring these two parties together requires certain skills whereby both parties can understand the motivations of each other in creating the partnership. This can perhaps be described as bringing the views of younger, formative and inquiring minds against the old well-established conservative views of those on the employment scene and one can easily see that these two views don't always mesh well. Someone once said that the job of the college coordinator is to explain to the student the views of the established employer and in his contact with the established to represent the thinking and objectives of the younger student as they exist. Insofar as he is successful in this will lie a great deal of success or failure of the student's placement.

It is no secret that most employers engage themselves in cooperative education in the hopes that when the student graduates, he will be a prime prospect for permanent employment and might be induced to work there on a career basis. I would submit a sub-motivation, however, in that the services of most cooperative students are rewarded by salaries which are commensurate with their abilities and productive efforts. As such, they are good employees even for a temporary term of service which is the cooperative period, even if they do not return in succeeding periods.

It may fairly be said that the majority of employers are looking for the best students that are available for employment in the program. "Best" usually means a respectable or upper-level grade point average. They are concerned

with how far the student has progressed in his academic work, his past experience, and his overall career objectives. The student's appearance and dress are important in the interview situation and students should be advised on this matter prior to the interview.

From the student's standpoint, he is likely to be motivated by two strong factors which may be weighed approximately equally. The first is to attain that objective which we call experience in his field of study so that he can enforce his academic and career objective and actually relate at least some part of his studies to what he is doing prior to graduation. He is also highly motivated by the opportunity to earn a salary which he can apply to the cost of his education. Corollary, the student is interested in obtaining an interesting job which will challenge him at least in part, he wants an association with an employer who will have a future for him, and he likes a pleasant, compatible working atmosphere under supervisors who will have some interest in him as an individual and who will understand the educational aspects of cooperative education.

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S. J. HIRSCHFIELD - Chrysler Corporation

In the cooperative education program, the student expects to be paid while learning. The company expects performance on the job and an opportunity to evaluate the student's long-range potential. The experience of many companies that have successfully balanced their requirements with the needs of the cooperative students shows that conflict is more apparent than real.

The foundation for a strong cooperative arrangement is a clear understanding of the needs of each of the partners. In helping the student better understand what he should expect from the company, the schools need to develop their educational philosophies and administer their cooperative programs in light of the employer's needs and limitations.

Industry must understand the unique needs of the students. For its part, it must be sufficiently farsighted in its own programs to realize that it serves its own larger purposes when it meets the student's immediate need for a rewarding work experience. The major objectives of the cooperative program a company administers should be:

- job assignments which help a student learn more about himself and his own interests
- preparation and help for supervisors so they can better understand the students
- better counseling and evaluation, and closer ties with the schools.

It is well known that cooperative programs have special advantages for students and schools. Beyond this, the cooperative program helps industry meet the critical need for trained manpower. There should be no conflict between the needs of the students and the requirements of the company.

WANDA B. MOSBACKER ~ University of Cincinnati

Most of the emphasis in cooperative education articles and booklets is on meeting the needs of students and far too little space has been given to the needs of employers. No matter how philanthropic a company would like to be, they are first and always business institutions functioning for the express purpose of making a profit. Schools offering cooperative education programs must be concerned that cooperative programs always be mutually beneficial and the needs of employers must always be recognized in establishing programs and in referring students.

However, since there are two representatives on the panel from business and industry, these remarks will point up some of the needs of students. Students look at their practice assignments from quite a different viewpoint than the employer. Also, even though employers usually are aware of the needs of the students, circumstances often make it impossible and sometimes undesirable to satisfy the needs:

- Need for recognition as an individual, a feeling of belonging, a feeling of accomplishment and a feeling of security
- Need for relevancy
- Need to be challenged
- Need to learn to exercise a degree of patience
- Need for a smooth transition from school to the work environment
- Felt, or real need for high income and a need for security
- Need to be working under a concerned and interested supervisor
- Need for a more permissive climate than exists in many businesses
- Need for an accessible location of employment

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M. G. TAMMEN - Arthur Andersen & Company

During the office interview with a C.P.A. firm, an audit manager spends the best part of an hour with a cooperative student familiarizing him with the duties and responsibilities of an auditor. He will draw from his own experience and give examples from a typical audit engagement. He will describe the audit team and explain how the student fits into that team.

He will also explain to the student the types and diversification of assignments he can expect, the supervision he will get and how his responsibilities will be increased as he progresses from one assignment to the next.

During the office interview, an office manager will spend from 45 to 60 minutes with the cooperative student, how he is integrated into our staff, training aids available to him, etc. He explains further that his performance will be reviewed with him after he completes each assignment, that strengths

and weaknesses will be pointed out to him and recommendations made as to how he can improve his performance. The cooperative student is told that he can attend all local office training sessions conducted during his work experience.

A manager or partner is designated as a counselor to the student. He is available to help the student in matters relating to training, preparation, assignments, technical problems and performance.

The office manager explains to the student that he will be spending a large percentage of his time working on client premises, helping to solve client problems.

At the close of the interview visit, a staffman will take the student on a complete tour of our offices and will show him our libraries, training aids and reference material. He will take the student to lunch and tell him about his own experience on the job and in our local and firmwide training schools.

It is desirable for the audit manager and the staffman conducting the tour to have been former cooperative students or interns.

When the cooperative student reports for work, he spends at least an hour with an office manager in an indoctrination session. The office manager will review local office procedures with him. He will also give him a publication describing our personnel policies.

A staffman then takes the student on another tour of the office, introducing him to key office personnel in our bookkeeping, typing and files departments.

The cooperative student must be made to feel he is important to us, that we want and need him. In actual experience, he is treated like a regular member of our staff.

**REQUIREMENTS OF EMPLOYERS:** We prefer students with good academic records who communicate well with people. We prefer that they have completed three accounting courses when they report for their first work experience. This enables us to immediately place them in client-solving situations.

The student should be flexible, he should be willing to travel 20% of the time and should not be reluctant to work a reasonable amount of overtime.

Very importantly, he should be service oriented, i.e., he should enjoy helping people with their problems.

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## PART IV. ADMINISTRATION OF COOPERATIVE EDUCATION PROGRAMS

### Some Thoughts on Cooperative Program Management

WALTER F. THOMASON - Broward Community College

In order to provide an effective climate in which cooperative education students and employers can gain maximum utilization of the program, the following organizational and administrative guidelines are recommended:

- The program should be centralized. There should be one organizational unit on the campus which is responsible for the operation of the cooperative education program.
- The program should be housed within the academic affairs side of the college. Cooperative education is an academic program, and should enjoy the same prestige as any other academic unit on campus.
- Cooperative Program administrators and coordinators should be trained in education and counseling, and should also have some "non-education" work experience in their backgrounds. Cooperative Education has no room for the pedagogical academician.
- The Cooperative Education director should report directly to an upper-echelon administrator, preferably the Dean of Academic Affairs, or the President of the college or university. The complexity of the cooperative venture requires a fast line of communication with the chief administrator of the college.
- Initially, programs should be voluntary in nature. Any new program which is mandatory in nature places an unreasonable burden on the staff. Programs of quality will grow through effectiveness, and will not need forced participation.
- The program should maintain a coordinator-student ratio of 50 - 75:1. This is especially true in a 2 year college, where the cooperative staff must develop training slots as well as prepare students for placement.
- Non-additive academic credit should be awarded for the cooperative experience. If the program is truly academic in nature, then it should receive recognition as do other academic programs.
- The operation of the program should allow for flexibility. Rules and regulations should be designed to anticipate the exception.
- The terms of employment must be geared to meet the needs of employers as well as students. Various types of work schedules should be designed to broaden the base of participation.
- The work experience should directly relate to the academic or vocational goals of the student.

W. A. STULL - Virginia Department of Community Colleges

The two primary questions I would like to address myself to in this session are:

- In what areas do we establish standards which will insure the quality of cooperative education?
- How do we measure the quality of cooperative education or how do we effectively evaluate cooperative education?

**Standards for Cooperative Education**

Standards are essential if quality is to be maintained in cooperative education programs. In my opinion there are a number of areas where standards can be established and maintained.

**- Standards for Employer's Selection**

Employers desiring to participate in the cooperative education activities of the college should be required to meet certain minimum standards as established by the college. These standards may include, but are not limited to the following:

- Complete commitment of the employer to the concept of cooperative education.
- Realization by the employer that cooperative education is first an educational activity. Commitment of the employer to the meaningful development of manpower.
- The ability and willingness of the employer to provide a well-planned series of employment experiences commensurate with the goals of the instructional program.
- Appointment by the company of a well-qualified coordinator who understands and is sympathetic with the goals and objectives of cooperative education.
- Ability of the employer to offer full-time employment to students after they have completed their educational program and their cooperative education experience.

**- Standards for Student Selection**

All qualified students in the curricular areas designated by the college should be allowed to participate in cooperative education. Minimum standards for participation may include, but are not limited to the following:

- Student should possess the necessary abilities, interest, personality, and maturity to benefit from such experiences.
- Student should have stated career objectives related directly to the areas of potential work involvement.

- Student should meet the minimum academic requirements as established by the college (2.0 often utilized).
- Student should be enrolled as a full-time student in the college and be enrolled in one of the participating curricula.
- Coordination of Academic Study with Student's Cooperative Education Experience.

Each student participating in cooperative education should follow a carefully planned experiential/training pattern during his practical work experience period. Attention should be given to arranging academic study to complement and enhance the value of the cooperative education experience. There are several methods of accomplishing this goal, all of which should provide assistance in differentiating between just plain "work experience" and a valuable "cooperative education" experience.

- Traditional individual student-employer step-by-step training plan.
- Individualized student-employer agreement where objectives for each work period are stated in behavioral terms.
- In-firm training programs applicable to one or more students and covering all designated work periods.
- Establishment of a Realistic Coordinator/Student Ratio
  - Where decentralized faculty/coordinator approach is utilized, suggest 1 faculty/coordinator for each 30-50 students. The teaching load would range in the area of from 6-9 credit hours.
  - Where centralized coordinator approach is utilized, suggest 1 coordinator for each 60-75 students.
- If you are going to insure or attempt to insure that students have meaningful experiences during their work periods, it is imperative that the coordinator be given sufficient time with an appropriate student load to fulfill the facilitator/developer role he has assumed.
- Establishment of a Functional and Continuous Student and Employer Evaluation Procedure

Not only must students be evaluated as to their performance during each cooperative education work period, but employers must also be evaluated. Employers should be evaluated prior to their participation as well as after.

#### Evaluation of Cooperative Education

When a cooperative education program is established by a college, one key ingredient of the total package is the design of an appropriate and continuous evaluation procedure. Needless to say, evaluation must be an ongoing activity designed to provide feedback towards improvement of the program, as well as to give the coordinators answers to questions which top administrators are likely to ask. The days of the philosophy, "It looks good, feels good, smells good, let's do it." are over. Administrators are looking for and requiring hard

data to substantiate the grand claims of cooperative education.

Certainly, it is important to evaluate all programs. Periodic evaluation is essential in order to plan and make improvements to cooperative education. The successful placement of students in full-time jobs is a good indicator of success. Total evaluation must consider all aspects of the program and should be a continuous activity. Objectives for cooperative education should be clearly written. These objectives for cooperative education should be measurable. Criteria for evaluation should be established at the time when objectives of cooperative education are identified.

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DAVID W. KUHAR - University of Detroit

While in the process of organizing a cooperative program and even when you are firmly entrenched in the day-to-day workings in the areas of student standards, work reports, and employer evaluations, you will wonder if they are worth the hassle involved. You'll ask yourself if the extra time you spend convincing Jim, the cooperative student, to get his hair "trimmed" rather than "ordering" him to do so was worth it. How far must the obligation of the coordinator stretch? Are the student work reports of real value to the program? Is the employer evaluation of the student valid? How will it affect the student's career? How should and/or can these tools be used to determine a grade and even credit?

You will have to determine the answers to these questions, but I feel it is necessary for you to begin your program by using these tools and paying a great deal of attention to them. If you don't, you'll just be in the business of "body shuffling". The students will lose interest, the better companies with career potential will back out, and you will shuffle "bodies" from the classroom to employers who need cheap semi-professional labor or enjoy the prestige of a cooperative program.

Let us look briefly at each area, beginning with the concept of student standards. These are the qualifications of the student that should be considered in order to accomplish the cooperative placement with a favorable result. Consider the student's particular interest within his major area of concentration, his personality, his grade point average, and his appearance. A minimum standard should be set for the program and placement standards should be set relative to the individual companies and economic circumstances.

We will define the work report as a written report about the cooperative assignment and submitted to the coordinator for the purpose of information and/or assignment. The report informs the coordinator about the job and may be compared to other reports about the same company. It allows the student to recall his experiences, both the frustrating and the pleasing, and to evaluate the experience. The reports are necessary and useful tools.

Employer evaluations, the third consideration, lets everyone know that you care. It lets the company know. It lets the student know. It's a written evaluation of the student by the employer, sent to the coordinator and maintained as a permanent record. The student must take a second look at his performances, and the company will have a training record to refer to when full time employment is discussed with the student at graduation. The value

of the evaluation is in the form of a commitment--a commitment on the part of the employer because he has to make a statement of record about his employee, a commitment on the part of the student because he finds himself being rated instead of his test or papers.

Finally, using the previously mentioned tools, a system to assign a grade value to the cooperative experience may be proposed. This would begin with an interview with the coordinator after each cooperative session. The report should be assigned some weight value, but I feel the evaluation should be given the most weight. The grade does not have to include actual academic credit, but it should be placed on the student's transcript as a part of his permanent record.

I suggest this type of an approach to your initial program because these tools will give your program stability while creating an image of order and endurance.

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#### Coordinator Responsibilities

WALTER F. THOMASON - Broward Community College

The cooperative coordinator has responsibilities to three separate, and often oppositional entities: the student, the employer, and the school.

Responsibilities to the student, the primary entity, are as follows:

- Through vocational guidance and personal counseling, prepare the student for a maximum gain from his cooperative experience.
- Place the student with an employer who will give him the best possible work experience. (Place is a misnomer; actually the student should place himself through a job interview and a personal commitment to work for a particular employer.)
- Keep in close contact with the student while he is employed to be sure that the experience is in keeping with the goals of the student.
- Assist the student with vocational counseling, academic advisement, and registration so that he maintains the best possible on-campus academic program.
- Understand the students' vocational and personal aspirations are subject to change, and be ready to cope with these changes.

Responsibilities to the employer are as follows:

- Be sure that the employer understands and takes advantage of the academic nature of the cooperative program.
- Supply the employer with qualified motivated, applicants.

- Assist the employer with the establishment and operation of him cooperative program.
- Act as a mediator and input source between the employer and the school.
- Keep promises. Don't make commitments to employers unless you are sure that you, your students, and your school can live up to them.

Responsibilities to the school are as follows:

- Maintain the academic integrity of the program.
- Keep the administration informed as to the plans, goals, and hopes of the business and student community.
- Be a spokesman for the institution.
- Help bring about closer communication between the teaching faculty and employers.

Assuming that the coordinator lives up to all of his responsibilities to the student, the employer, and the school, he must be an educator, advisor, counselor, personnel officer, mediator, systems analyst, curriculum expert, manipulator, juggler, and a salesman.

In other words, he must coordinate.

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#### JAMES T. GODFREY - Virginia Polytechnic Institute

The coordinator of Cooperative Education is a unique kind of educator. As the catalyst that creates the interaction among students, employers, and academia, the coordinator has responsibilities to all three groups. Thus he must, on different occasions, represent each of the three groups to the other. For example, when recruiting employers, he must represent the school and the students. He represents the employers when persuading faculty and administration in the school to offer certain course work more than once per year so that a workable Cooperative Program schedule can be arranged and, also, when working with students to effect placement with employers. He must know and understand each of the three groups sufficiently well to perform his duties as representative when necessary.

Most of the institutional coordinators presently active have come from the academic ranks. Some have had professional experience in industry and government; but, in my opinion, too many coordinators are, by background or preference, too heavily oriented towards academia and are either unable or unwilling to see, and represent, the employer's point of view. This is not to say that a coordinator with little or no experience in industry or government cannot be effective. He just has to work harder at getting to know his employers so that he can effectively represent them. This extra effort will also help in relating Cooperative job opportunities to his students.

A coordinator must wear many different hats, and much has been written on this subject. New coordinators certainly ought to read this literature--

especially Professor Charles F. Seaverns' A Handbook for Coordinators of Cooperative Education. All of the Coordinator's duties (as set forth by Prof. Seaverns and others) are important, but it should be understood that the largest part of the Coordinator's time and energy will be spent in placing students--that is, matching up student aptitudes and interests with available employment opportunities, and representing student applicants to employers in such a way that these students are hired. If this part of his job is done well, then the rest is easy and consumes little time and energy. If a student is properly placed--with an employer that has been properly "sold" on cooperative education, in a position that is related to the student's field of study, in work that the student has the necessary skills to handle but is also challenging and slightly "above the student's head" at least part of the time--then few problems will result. If this "ideal placement" is affected then the student gains satisfaction from the job, gets increasing responsibility and greater technical depth each time he returns to work, his grades improve, etc., etc. It follows that the coordinator spends little or no time counseling on personal, academic, or career problems with such a student. Obviously we do not always achieve the ideal, but we do in many, many cases and it is important to strive toward more "ideal placements". The more successful a Coordinator becomes in placing students--which activity constitutes the major portion of his job anyway--the less time he will have to spend on the peripheral activities. Thus, the Coordinator should constantly strive for better knowledge and understanding of his employers and the job opportunities they offer for students. (As noted above, this may require a considerable amount of extra effort for the Coordinator whose experience and natural tendencies are more academically oriented). He should also seek to improve his evaluation of student abilities and interests so as to properly match student and job and achieve the "ideal placement" discussed earlier.

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#### GEORGE H. MILLER - University of South Florida

The Cooperative Education Coordinator (or Director) at the educational institution has many responsibilities including the following:

##### **Administration of the Program**

- See that it is adequately funded through continued communication with your superiors. Get as close to the president as you can with the story.
- See that other areas of the institution recognize the Cooperative student as a full-time student when he or she is on a work/training assignment. See that he is not short-changed because he is not on campus.
- See that the Cooperative student is aware of his rights as a full-time student even though he may be 1,000 miles away on a work/training assignment. Health benefits, right-to-registration materials, catalog, etc.

##### **Recruitment of Employers**

- Recruit employers who will be able to take the students your institution will be able to supply. No need to develop engineering openings if your institution does not have an engineering program.

- Have a planned program for communication with employers once recruited:

- Newsletter
- Visitations
- Other--phone calls

#### Recruitment of Students

- On Campus
  - Via counselors/advisors
  - Via faculty
  - Via Registrar and Admissions Office
  - Via students
  - Information Sessions open to all
- Off Campus
  - High School guidance counselors
  - 4-year institutions, also via 2-year institutions when you accept their transfers
  - Programs before clubs, associations

#### Own Professional Development

- Through organizations
  - Cooperative Education Association
  - State, local or regional cooperative or placement organizations
  - Personnel and guidance Associations
- Publications
  - CEA Journal
  - College Placement Council, Inc. publications
  - Local, State, Regional publications in areas of Cooperative Education, Placement, Guidance, and employment

#### Student Placement

- Information Period and Assignment
  - Getting Information from Student
    - Application Form
    - Career Planning/Information Session (group session)
    - Individual appointment with coordinator
  - Delivering Information to Student
    - Career Planning/Information Session (group session)
    - Individual appointment with Coordinator
    - Interview with employer (this information from employer)
    - Orientation Session before leaving for Work/Training assignment

In the application form the student may give information, as the form is designed, which may be helpful to the coordinator to review before the first appointment. The Career Planning/Information session is a group meeting to tell students what cooperative education really is. Group meetings save coordinator time. The individual appointment then gets at the student's goals and what he really wants in a career. This then leads to the interview and

acceptance. Then the Orientation Session reviews the student's responsibilities and gives him tips on success on his assignment.

**- On Assignment**

**-Student's Response to Coordinator during assignment**

- Report Form letting Coordinator know he arrived, his address, how to reach him in an emergency.
- Mid-Term Report - how is he doing, does he have any complaints.
- Housing Report - Information on student's housing that may be helpful to future outgoing students
- End of Term Report. Summary of his activities with recommendations how Cooperative Office or Employer might make, or have made it, better.

**-Back on Campus**

**-Interview with Coordinator**

- Will he be reassigned
- Return to same employer
- Be terminated

Following interview the coordinator should notify the employer of the future plans, will the student return, etc., when, with any special recommendations.

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**L. GLENN O'KRAY - University of Detroit**

The counseling aspect of Cooperative Education is an important element for the success of the program as it relates to the student and as it relates to the employer.

The Cooperative Education coordinator has a role of assisting the student in determining his vocational interests. The coordinator's role then evolves to one of assisting the student in finding fulfillment through his cooperative employment. He makes occupational areas of employers known to his students.

The coordinator, in order to readily analyze the career orientation of the student, should be aware of the factors leading to career selection. Various vocational psychologists state the respective elements present in the process of career choice. They include social and economic class, home, school, environment, community, pressure groups, ability, geography, history, accident, error, emotional needs, and counseling. Some psychologists theorize that career selection is a situation of growth. Others indicate that man has many potentials which can reach fulfillment through various job patterns.

The coordinator has a responsibility to use all available tools to help the student determine the career direction which is best for him. The interview itself is a very important informational vehicle. Through the discussions with the student, the coordinator can to a degree determine the student's basic interest patterns, his likes as well as his dislikes. Academic and extra-curricular interests are often indicators to vocational direction. The student can complete an interest form which will give the student's orientation as he

perceives it. Faculty members and advisors can be of assistance. An evaluation by a faculty member will sometimes indicate a direction which might not be readily evident either through the transcript or the interview. A group counseling situation can be used to assist the student in bringing forth within himself a realistic appraisal of his career direction. Psychological testing is an additional tool which should only be used as part of a total package in assisting the student. The most widely used tests are the Strong and the Kuder.

Once the coordinator has some idea of the direction which a student should take, he has the role of presenting to the student the various areas of employment which can best fill his needs. This process can take many forms. One is through the occupational class. This can not only help the student gain a knowledge of the occupational world but of himself as well. The coordinator can refer a student to other students who have already had work experiences in a mutual area of interest. Cooperative work reports are added sources of information. Another source of information is the expert in his field. A coordinator might have a reference list of professionals to whom he might direct students who think they have a mutual interest. Literature published by various employers can give good job descriptions. Various publications such as the Occupational Outlook Handbook can be of value. Most professional societies have information on their respective professions.

When the evaluation of the student is made with all the tools available and when the student can best determine for himself the areas of employment available to him the best placement will result. When the employer meets the vocational needs of the students, both the student and the employer will find mutual satisfaction through the Cooperative Education Program.

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JOHN A. CRUSOE - University of Detroit

When one considers the topic for discussion, he cannot help but ask himself if there is any such thing as a typical cooperative work assignment. A typical assignment during periods of business expansion and economic stability can be very untypical during a recession. As a matter of fact, during a recession, all cooperative jobs seem untypical.

In any case, a coordinator must still get out and find job opportunities for his students, whether these jobs be typical, untypical, or whatever. He must never lose his missionary zeal in seeking jobs which will satisfy the individual needs of his students. These needs may be for a specific type of job which relates closely to the student's field of academic study, or the needs may be for an assignment designed to acquaint the student with the world of work so that he might find a possible career. As one might expect, jobs for engineering and accounting students tend to be of the former and jobs for liberal arts students of the latter.

Since the employer probably plays the most important part in a cooperative education program, the coordinator must be aware of what businesses do, what kinds of people they employ, and where to look for these businesses. The coordinator is an outside salesman who must keep abreast of business affairs and who must keep his eyes open for employment possibilities just down the road in that new industrial park or buried in that skyscraper over there.

I have divided students by their academic majors as follows: 1) accounting, 2) architecture, 3) business administration, 4) education, 5) engineering, 6) liberal arts, 7) science, 8) technical. While this is not an exhaustive list, it will allow me to note some of the job possibilities for each area.

#### ACCOUNTING

Certified Public Accounting  
National, Regional, and Local Firms

Business and Industry

Corporate - Internal Auditing and Accounting  
Independent Accounting Service Firms  
Tax Consultants

Government

IRS, Federal Reserve Banks, G.A.O., etc.

Banks, Credit Unions, Savings & Loan Associations, etc.

#### ARCHITECTURE

Architectural Firms (A.I.A)  
Construction Companies  
Municipalities  
City Planning Firms  
Federal Agencies (opportunities limited)

#### BUSINESS ADMINISTRATION

Economics (difficult to locate good work assignments--usually large industries, larger organizations)

Government

Finance (some interchangeability with accounting jobs)

Government

Industrial

Banking

#### EDUCATION

Often difficult to place students because of poor school finances and excessive teacher supply

Possible cooperative positions:

Teacher's Aide

Principal's Aide

Student Teaching

#### ENGINEERING

Electrical  
Electronics  
Computers (hardware and software)  
Communications

Instrumentation  
Avionics  
Microwave  
Components  
Power  
Plant and Production engineering

Mechanical

Plant engineering  
Product Development (R & D) Basic or Applied Research  
Manufacturing engineering  
Industrial engineering (Standards)  
Design (Drafting-Estimating) This applies to most engineering disciplines

Civil

Structural (buildings, bridges, etc.)  
Urban planning (roads, sanitary, water, land development)

Where to seek jobs:

Municipalities and planning commissions  
Consulting firms  
Construction companies  
Government  
Highway and other state departments  
Federal: Coast Guard, Corps of Engineers, Ocean Survey

Chemical

Petrochemical  
Polymers  
Basic Chemicals  
Specialty gases  
Metallurgy  
Pollution Control  
Rubber Products  
Explosives  
Propellant applications

Jobs include lab work, design, field work, testing, etc.

LIBERAL ARTS

Government (Federal, state and local)  
Political Science  
Social Service Agencies  
Institutions (Museums, Art Institutes, Libraries, etc).  
Business and Industry

Identifiable areas:

Personnel, Public Relations, Purchasing, Production,  
Supervision, Retailing

Banking

Media (Radio/TV, Newspapers, Magazines, Films, Publishing Houses)

## SCIENCE

### Physics

National agencies (basic research)  
Industry

### Biology

Hospitals  
State and Federal agencies  
Pollution Control

### Chemistry

Business and Industry  
Federal agencies

### Mathematics

Business and Industry - Statistical analysis  
Government agencies - Computer Programming  
IRS, FAA, GLS, etc.

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## Non-Technical Disciplines in Cooperative Education

WANDA B. MOSBACKER - University of Cincinnati

Although the category "non-technical disciplines" includes many majors in addition to those in the liberal arts, these brief comments will be limited to only the liberal arts cooperative education programs. The major difference in working with liberal arts students on cooperative programs (particularly the non-science majors) is that the college coordinator and the employer, more likely than not, are working with aspirations and interests rather than saleable skills. The more clearly defined career opportunities available to technical (and liberal arts science) graduates give those graduates more direction; full-time career opportunities for liberal arts non-science graduates are still quite vague. However, even within the liberal arts non-science student group there is great variance in the degree of career-orientation and the farther a student is from the career-orientation motive, the more difficult it is to develop sophisticated relevant work experiences. Yet, these students with little or no career orientation can also derive great benefits from cooperative education. Unfortunately many college administrators and faculty often expect that cooperative education programs will provide job opportunities for liberal arts undergraduates in situations that actually do not exist for liberal arts graduates and so cannot be expected to exist for the undergraduate cooperative education students.

Although almost every college student is in need of some career counseling, a great deal more initial counseling is involved when working with liberal arts non-science students, both for clarification of goals and for bringing into the picture reality regarding the labor market, projected opportunities, etc. Off-campus supervision of the liberal arts student may also require more of the coordinator's and the employer's time, for the liberal arts student may experience a real "downer" when his assignment does not match his intellect. His employer may be aware of the situation but powerless to do anything about it until the student acquires an organizational background and develops some clearly defined career goals.

The liberal arts degree usually requires far fewer hours in a major field

of study than is the case for technical majors. Many students do not decide on a specific major until more than half way through their college program. Thus, conventional, career-oriented work assignments are less practical and more difficult to identify and arrange, because of the students' lack of major-area-orientation.

The descriptive material about cooperative programs also often creates problems. Phrases appear in the literature stating that the student's work assignments are directly related to his major and these statements are usually supported by illustrations of students on relevant assignments. Thus, even though the liberal arts student is unable to identify careers related directly to his major, he assumes they exist because he has read that he will be placed on assignments directly related to his major. When a liberal arts student has such misconceptions, the cooperative education program often loses credibility.

Very few employers in the profit and in the non-profit sector, can afford the luxury of serving merely as training centers, and liberal arts students, unsure of their interests and goals, often want to remain with an employer only long enough to gain a surface knowledge of the employer's operation. Also liberal arts students are often more interested in work assignments in the non-profit sector of our economy and such employers do not yet seem to have the same degree of knowledge of the values of co-operative education as the profit sector.

One fact is certainly obvious. While students in all majors require careful, individualized attention, most liberal arts students require more attention. Therefore, for any liberal arts cooperative program, the student/coordinator ratio must be low. It takes ingenuity, imagination, patience, and a great deal of effort to ferret out the job opportunities, especially for the non-science majors.

Perhaps, while every attempt should be made to fit the highly career-oriented liberal arts student into the traditional type of alternating program, at the same time, in order to be responsive to the liberal arts students who do not have career-oriented goals, there should be introduced more flexibility of scheduling as well as a recognition of resources for off-campus experiences that would not be approved in most traditional programs.

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#### Forms

#### WANDA B. MOSBACKER - University of Cincinnati

Forms for a new program can cause problems. Usually there are both time and money constraints when a new program is being set up, and the tendency is to borrow another school's forms in toto. The danger in this approach is that the programs are most likely dissimilar, requiring different forms even when their overall objectives and basic plans seem to be the same. Borrowing another school's forms can be quite expensive if, at a later date, they prove inadequate. Even worse, the propensity to "live with" the situation once the forms have been printed and introduced, means a program can be saddled with poor forms and inadequate procedures. A sound approach is to review forms used by other schools and adapt those that are applicable to the needs of the new program and innovate the remainder. For a program of

considerable size, communication both within and without the department and adequate record maintenance becomes a problem, and as a result, many forms are necessary. However, great care should be exercised to keep procedures as uncomplicated as possible and the required forms at a minimum to avoid being inundated by paper work.

At the outset, a good plan is to reproduce all forms for a new program as inexpensively as possible, using mimeograph, multilith, etc., so that changes and adjustments can be made without the roadblock of prohibitive cost.

Kinds of forms currently in use at the University of Cincinnati:

Student Forms

- Admission forms: Professional Practice Enrollment Card  
Application  
Student Information Sheet
- Professional Practice Record (Rand Card)
- Professional Practice Quarter Registration (Registrar's card-carbon to  
Professional Practice Division)
- Student Practice Quarter Report
- Appointment Request
- Change in Assignment Record
- Employers Appraisal of Professional Practice Student
- Student Petitions

Employers Information Forms

- Professional Practice Information Sheet
- Company Visit Information
- Rand Card

Awards

- Professional Practice Achievement Certificate
- Professional Practice Performance Certificate
- Professional Achievement Recognition
- Professional Development Award

Counselor Forms

- Counselor Referral to the Standards Review Committee Work Sheets
- Quarterly Professional Practice Opportunities
- Students Available for Referral - Quarterly List
- Students in program by major, by section, alphabetically by year

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ROBERT B. AULD - Cleveland State University

The Preacher said (as a kind of afterthought to his own book): "Of making many books there is no end." We can paraphrase Ecclesiastes and say, "Of making many forms there is no end." The disease is endemic in the academic world and tends to infect cooperative education programs with peculiar virulence. So a word of caution: Don't make unnecessary forms. But if forms are needed, do make them; and then use them.

The chief purpose of forms is to facilitate and expedite the countless interpersonal transactions involved in the operation of a cooperative education program. A secondary purpose is the keeping of records.

Let's examine first the various relationships the cooperative plan entails and then think what forms are required to facilitate those relationships. I propose to discuss some of these forms, but I do not intend to present samples. Colleges with cooperative programs are invariably glad to let others see the forms they use. But each school must decide what forms to use and then tailor them to its own needs.

Most important among the many transactions in cooperative education are those between the student and his coordinator. The coordinator, who provides the liaison among the student and the college and the company, must be well informed about all three, but facts about the student are of crucial importance. His first knowledge of the student, especially if the cooperative program is optional, may come from an application card on which the student indicates his desire to participate and such basic facts as his college (Arts and Sciences, Business Administration, Engineering, etc.), his class, and perhaps some sign that he understands what cooperative education is all about. The student may then be sent a form asking him to report to his coordinator for an initial interview and specifying day and time.

Either at this interview or (preferably) prior to the interview the student completes a rather extensive form giving his vital statistics and other information essential to the coordinator. Cooperative departments can easily go hog-wild in devising this form; I hold that its value is increased by exercising some restraint. Certainly name, address, sex, age, height, weight, marital status, citizenship, physical disabilities, military status, special skills (typing, shorthand, etc.), having a car and driver's license are information valuable to the coordinator. School background (especially other colleges attended) is important, and a record of past work experience as well. Whether other things such as father's occupation, number and sex of siblings, extra curricular activities, financial status, etc., need appear initially on this form is a matter for each department to decide. We found that such a form is most helpful when printed on the inside of a file folder, leaving front and back of the folder for records of the student's referrals and jottings about interviews with the coordinator. The folder itself then becomes a receptacle for the many bits of ephemera the student engenders.

Whether the first interview with an employer is arranged by phone or not, a form card introducing the student to the employer is helpful. Some schools place this form on a franked card addressed to the department and ask the employer to indicate whether or not the student has been hired.

Some schools use an agreement form which both student and coordinator sign before the referral of the student to an employer. Its purpose is to make sure there is mutuality of understanding of obligations involved. This form may designate rate of pay (when determined) and conditions of employment (i.e., the employer's commitment). It may indicate the student's understanding that his work on the job is part of the requirements for a degree (if it is), and if his age requires a working certificate, it may ask him to promise to get one.

When the cooperative student starts his job, certain information is essential to the coordinator and can best be supplied by a report from the student.

The coordinator needs to know the exact name of the company, what sort of work the student is doing, who his immediate supervisor is, who the personnel manager is, what hours he is working, and his rate of pay. Practice varies on the details, but I think the student should furnish this information on a suitable form.

Shortly before the end of the student's work period the personnel manager should be sent an employer's evaluation sheet asking him or the student's immediate supervisor to judge the student on such things as relations with others, judgment, ability to learn, attitude and application to work, dependability, quality of work, attendance and punctuality. An overall rating and comments are also valuable.

Other forms used or required by the coordinator might include a work report cover, a work report evaluation sheet (for coordinator's evaluation and/or faculty member's evaluation), forms for the student's school cooperative schedule, forms for keeping information about companies (employers), a form for obtaining the parents' approval of the student's proposed residence, general petition forms, monthly expense account forms, and forms for certificates of award.

Then, depending upon what kind of a martinet is in charge of the department, there are all kinds of possible report forms: coordinator's weekly placement report, coordinator's weekly firm visit report, coordinator's weekly schedule. The coordinator may be asked to make a weekly or monthly report on students who are unemployed. And the department itself may make a monthly report to college or university authorities.

The forms I have mentioned are by no means the only possible ones, but as I said earlier, their number should be kept to a minimum. After all, the time a coordinator spends filling out forms is often taken from time he might more profitably spend in some other way. I have tried to describe the forms I consider most essential more fully than those I feel are less important. For example, I would refer you first to A Manual For Coordinators of Cooperative Education by Charles F. Seavers, Jr., published by the Center for Cooperative Education, Northeastern University, Boston, Massachusetts. Then you might check with other schools. But your forms must arise out of your needs, just as the cooperative education program you develop must be tailored to your particular situation.

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JULIUS RANDALL - Pratt Institute

For many years, engineering programs at colleges and universities have conducted highly successful cooperative education programs with industry and governmental agencies. The educational benefits of such a program are manifold: 1) the synthesis of study and practical work experience produces a graduate prepared for the immediate assumption of professional responsibilities; 2) it provides substantial financial assistance for financially-disadvantaged students; 3) for the minority student in particular, it gives the opportunity for realistic exposure to various engineering careers, and provides on-the-job work exposure in a specific field. In order to achieve maximum coordination among the educational institution, the co-op employer, and the individual student; four feedback mechanisms have been incorporated into the co-op program at Pratt Institute. It has been demonstrated through experience in co-op

education that these four feedback mechanisms are required for successful operation. They are as follows:

- Employer Evaluation
- Student Work Reports
- Coordinator Visitation
- Student Final Critique

A brief description of the purposes of these mechanisms will clarify their function and importance in the evaluation process in cooperative education.

**A. The purposes of the Employer Evaluations are:**

1. To provide information on the student's ability to adjust to the industrial environment.
2. To describe the student's manner of handling the responsibility assigned to him.
3. To guide the student in course selection for subsequent semesters by evaluating his strengths and weaknesses in specific content areas.
4. To guide the Dean of Engineering and Science in the development of programs which simulate the work environment that the students will actually encounter.
5. To inform the Director of Co-op Programs whether the coordinators are developing the kinds of co-op jobs which provide meaningful job experience for the students. It will reveal to the Deans and faculty members whether they are gearing their instruction to the needs of industry. The results of such dialogues will help the student to develop more fully in the work environment.
6. To enable employers to compare the performance of co-op students from various academic institutions.

**B. The purposes of the Student Work Reports are:**

1. To define the type of job assignment in order to help the coordinator evaluate the degree of congruency between the job description and the actual work assignment.
2. To judge the nature and level of responsibility in the student's job assignment.
3. To evaluate whether the levels of progressive job assignments match the increased academic achievement of the student.
4. To evaluate the development of the student's technical writing skills.
5. Most important, to inform the coordinator about the kinds of jobs the company supervisors assign to co-ops, and to make a better selection of prospective co-ops when replacing the original ones.

C. The purposes of the Coordinator Visitations are:

1. To see the student and supervisor in a working environment on a project together and evaluate the responsibility of the student's work assignment.
2. To make it possible for the coordinator to act as a troubleshooter between the company and the student in resolving any personal problems or job problems with the supervisor or co-workers.
3. To help the coordinator to get a better understanding of the job assignment so that he can explain the assignment to the engineering academic advisor.
4. To give the coordinator the knowledge to sell the co-op assignment to other prospective co-ops.
5. To give the coordinator a chance to familiarize himself with the living conditions. Of special interest is the availability of colleges in the area to enable students to continue their education with evening courses. Additionally, it helps to establish a relationship with nearby colleges in order to utilize the dormitories if space is available, or to register students as special students.

D. The purposes of the Student Final Critique are:

1. To represent the final report of the program. It gives the student an opportunity to express his likes and dislikes for the program, as well as the program's advantages and disadvantages. Most important, his suggestions to improve the co-op program are an integral part of the report.
2. The critique is used during the Orientation Seminars to encourage freshmen to join the co-op program.

In summary, the final goals of the cooperative education program are to create a better environment for learning and a self-sufficient, productive worker in the labor market. The application of an effective evaluation process can help us to achieve these important goals.

### Community Colleges in Cooperative Education

ROBERT L. BROWN - W. W. Holding Technical Institute

In order to assess the current status and trends in Community College Cooperative Education, I believe we must first review the history of Cooperative Education in two-year institutions. In 1968, there were thirty-one (31) institutions reporting to the Cooperative Education Association the existence of Cooperative programs. Of these, two reported programs which began between 1930 and 1939: six in the mid to late 1940's; two in the mid 1950's; and twenty-one in the period 1960-1968. These thirty-one (31) institutions had an average of 110 students per program, with a range from 5 to 692.

In 1970, there were fifty (50) two-year institutions reporting cooperative programs, nineteen of which began in 1969-1970. These fifty (50) institutions reported an average of 148 students per program. The 1973 report from the Cooperative Education Association shows there are 163 two-year institutions currently listed as offering Cooperative programs. Of those schools reporting numbers of students, the average per institution has risen to 155.

It is interesting to note that in 1968, of the thirty-one (31) programs reported, seventeen were identifiable as alternating programs with the remaining fourteen either being parallel, "one-shot", or unidentifiable. In 1970, there were thirty (30) of fifty (50) institutions identified as having alternating programs with the remaining twenty (20) having parallel, "one shot" or combination. This would indicate a growth rate of 76% for alternating programs and 30% for all other types.

While Cooperative Education shows a growth of 226% during the period of 1970-1973, we find that the percent of increase for alternating programs was 233% during the same time period. It is not feasible to give a percent of other programs, since it was impossible to classify thirty-five (35) of the 163 programs.

TRENDS: From the statistics thus presented we can readily see that tremendous growth has taken place in the number of two-year institutions that have begun Cooperative Education programs within the past five (5) years. It would be safe to assume that a number of these programs are an out-growth of Federal Funds, such as Cooperative Education, College Work-Study, and Vocational Education, which have been awarded to institutions in order to get them involved in Cooperative Education. Quite frankly, I will be interested to see how many of these programs will remain in existence once these funds have expired. It seems to me that institutions which are truly dedicated to the philosophy of Cooperative Education would be able to establish and operate programs without first waiting for the impetus of outside funds. Consequently, it is my fear that within a relatively short period of time, you will see many institutions close their Cooperative Education Programs. Though there will be many reasons given for the closings, the underlying reason in most cases will be the lack of a true commitment on the part of the institution's administration.

ROGER E. HEDGEPETH - Virginia Polytechnic Institute

At this point in time, May 1973, a discussion of articulation of community (or junior) college Cooperative Education Programs with those of four-year institutions is, of necessity, somewhat open-ended.

A few statistics, as gleaned from the Directory of Cooperative Education, '73, will confirm the rather arbitrary nature of any observations, concerning two-year programs, that attempt to be all-encompassing. Approximately one-half of the junior college Cooperative Programs listed in the directory have indicated a start-up date of 1970 or later. These programs are still developing their goals and methods of operation. About 20% have Cooperative Programs in academic areas that could provide transfer credit leading to the Bachelor of Science or Bachelor of Arts degrees. Many of these also have technology programs. Another 13% could potentially offer transfer credit in technology areas alone.

In summary, approximately one-third have programs at this time which can provide, in an uncontested manner, the first half of a Bachelor's program. It would appear, consequently, that the subject of articulation would not be a high priority item in 1973 for most of the programs. Actually, this is a good thing. By possessing the luxury of ample time for study, those institutions which desire to articulate two-year and four-year Cooperative Programs will not have to resort to quickly-conceived, stop-gap procedures which will require much modification at a later time.

By definition, articulation means:

- A jointing or being jointed.
- The method or manner of the above.

In order to arrive at recommendations that have any degree of concreteness, one should examine the resources, exclusive or pros and cons, and reduce these to the combinations that could ultimately provide workable methods of articulation.

The available resources are:

I. JUNIOR INSTITUTION

- A. Cooperative Programs
  - 1. Two Years\*
    - a. Terminal
      - 1) Alternating
      - 2) Parallel
    - b. Transfer capability
      - 1) Alternating
      - 2) Parallel
  - 2. Three Years (or more)
    - a. Terminal
      - 1) Alternating
      - 2) Parallel

B. Employers

1. Part-time (parallel) employment
2. Full-time (alternating) employment

C. Students

Included are the potential transfer students)

II. SENIOR INSTITUTION

A. Cooperative Programs

- 1. Regular university Cooperative Program, covering period from freshman to senior years
- 2. Special programs designed especially to accommodate transfer students

B. Employers

1. Full-time (alternating) employment

A closer examination of the combined resources leads to an immediate reduction of possibilities.

Three-year programs are too long for use in articulation schemes. The integration of such a program with the regular Cooperative Program at a university would, more than likely, extend the total time required to obtain a Bachelor's degree beyond five years. Such an arrangement would not be attractive to most students.

Parallel work-study programs are not suitable for articulation. This is not a negative comment; it is very apparent that many junior institutions have developed successful terminal programs that incorporate parallel work assignments. The point to be made is that the parallel work experiences should not be continued at senior institutions for a reason which is independent of employer or institutional policies. The third and fourth years of an academic program leading to the Bachelor's degree concentrate on lengthy projects, reports, lab exercises, special study, etc. Generally, this specialized study requires the full-time attention of the student whether he is in class or not; it is not conducive to his leaving the campus for several hours each day at a prescribed time in order to work. Daily part-time work and study is not an impossible arrangement, but it is definitely not workable for the larger body of students who are in the latter half of their bachelor's program and carrying full course loads

\* "Two-year" in every instance means two "academic" years of study

Exact details of articulation would have to be developed by the coordinators of the cooperating institutions, but a few general comments on specific items are:

- Commitment to Transfer Program:

The student who intends to transfer to a senior institution should commit himself to a transfer program during his first year of study. It is exceedingly difficult, if not impossible, for one to complete a terminal program and decide later to continue in a degree program, without loss of credit and time.

- Transfer to a Regular University Cooperative Program

In effect, the transfer Cooperative student is joining another Cooperative Program in mid-stream. This requires close communication between cooperating institutions and difficulties may arise which are due to the general nature of some community college students.

There are reasons, other than financial, why some students enter the community college rather than the senior institution. Two of these are: undistinguished high-school academic record and very strong community ties (desire to stay at home as long as possible). Students for whom the above applies, generally have difficulty adjusting to University routine after the transfer takes place. Accordingly, it is usually a good idea for a transferring Cooperative student to spend several weeks on the campus of the senior institution before continuing Cooperative work assignments. This adjustment period will allow the coordinator to take preventive measures if difficulties seem imminent.

- Employers

The opportunity to articulate Cooperative employers would appear to be quite good. For the most part, two possibilities exist:

- Transfer Cooperative student remains with employer associated with two-year program. (Condition: Employment should furnish experience compatible with junior and senior course work in student's major field).
- Transfer Cooperative student begins work assignments with new employer who is associated with four-year program. (Condition: Student must be willing to go where the better jobs are; these may not be in his hometown).

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PAUL GOULD - Macomb County Community College

The purpose of cooperative education is to provide an integrated program of academic study, work experience, supervision and guidance aimed at the personal development, vocational preparation, and realistic education of the student.

In its Industrial Cooperative Internship Program the Division of Industrial Technology of Macomb County (Michigan) Community College has committed itself to that purpose. In addition, by the establishment and operation of 17 Associate Degree programs, within each of which there exists an opportunity for students to participate in such internships, the College believes it can help reduce the 350,000 shortage of technicians predicted for 1975 by the U.S. Bureau of Labor Statistics. Graduates of these programs will be able to respond to a prospective employer's queries as to training and experience that (1) yes, they have adequate training, attested to by their Associate Degree Diploma, and (2) they have experience working in the field of their specialization as shown by their Cooperative Internship record.

That the Industrial Cooperative Internship program is carefully planned and administered can be seen from the following chart.

# INTERNSHIP

RECRUIT STUDENT APPLICATION

COORDINATOR INITIAL INTERVIEW

OBTAIN TRANSCRIPT

OBTAIN PROGRAM  
ADVISOR APPROVAL

YES

COORDINATOR 2ND  
INTERVIEW &  
APPROVAL

YES

PLACEMENT RECOMMENDATION

LETTER OF INTRODUCTION  
TO COMPANY PREPARATION

PROGRAM ADVISOR  
REJECTION

COORDINATOR  
REJECTION

COORDINATOR LETTER  
OF REJECTION

STUDENT REVIEW OF COMPANY FILE

REGISTRATION PERMIT & INSTRUCTION

STUDENT INTERVIEW WITH COMPANY

COMPANY ACCEPTANCE

YES

YES

STUDENT LOCATOR CARD PREPARED

STUDENT DATA SHEET PREPARED

COORDINATOR CHECK LIST  
& ROSTER PREPARED

EDUCATION PLAN

AGREEMENT FOR INDUSTRIAL  
COOPERATIVE INTERNSHIP

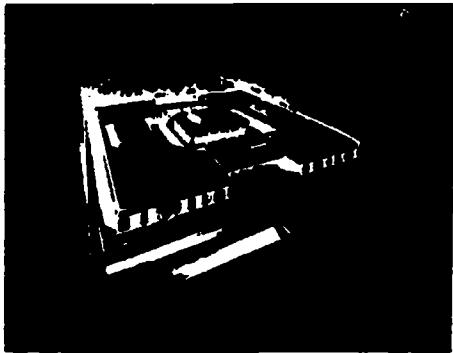
SELECTIVE SERVICE  
LETTER INITIATED

SS 109 FORM INITIATED

EVALUATION FORM INITIATED  
EVERY SIX WEEKS

STUDENT REPORT PRESENTED

CERTIFICATION OF PARTICIPATION  
PRESENTED UPON COMPLETION  
OF PROGRAM



## PART V. ACADEMIC CREDIT FOR COOPERATIVE TRAINING EXPERIENCES

LAWRENCE N. CANJAR - University of Detroit

Much has been said about awarding credit for the cooperative educational experience and today we have a proposal relating to the grading of cooperative industrial assignments which has been accepted in principle by the American Society for Engineering Education. While the proposal represents a great deal of progress in the recognition of cooperative education as an academic experience, it is only a beginning. The full potential of cooperative education will not be realized or appreciated by university students, faculty and administration, until a significant amount of credit is granted for this experience and the grading is such that it will have an impact on the student's grade point average. Until cooperative credit can make the difference between a student graduating with or without honor it has not achieved its full recognition. This goal negates the present proposal regarding one credit courses and pass-fail grades.

Before a university can become extravagant with the awarding of credit, certain criteria must be met:

- Only the Faculty of a school or college can grant credit for academic work. If cooperative education is to be a truly academic experience then the Faculty will have to become involved in the cooperative experience in a more than superficial way. (In this context, Faculty is meant to mean the total teaching staff and not a few specifically designated professors.)
- Students cannot be passive and merely perform well in their industrial assignments but they must be perceptive and seek to extract real learning in disciplines other than engineering from situations they encounter.
- The evaluation of the effectiveness of cooperative experience must be made by a consistent set of standards. This implies that while the industrial supervisor should make inputs into the evaluation procedure; the final judgments about the student's growth and development must be made on the campus where he can be compared with his peers.

There is a commonly accepted fallacy about cooperative education that must be recognized if it is to be a truly academic experience. Emphasis is usually placed on physical things. Students vie to go to the best equipped laboratories or work with the most modern equipment. The educational value associated with this pre-occupation with technology is limited. It is possible for a student to squander a whole cooperative period on a testing program and the accompanying statistical analysis of data which only has educational value during the first few days of work. Associated with this emphasis on the technological sophistication of a specific cooperative experience is the dilemma coordinators face in trying to evaluate two students: one who worked at a modern, advanced research installation and another who was assigned to a stable, slow-moving production facility.

The best place to teach technology is in the university. There the Faculty can strip away hardware and gingerbread and uncover working principles that will serve the student when present technology becomes obsolete or radically changed. What cannot be taught in the classrooms or academic

laboratories are people problems and managerial systems. They can be only simulated in very poor unsatisfactory ways in the classroom. The cooperative experience on the other hand offers engineering reality; not only the technology but all the human systems with their capabilities and shortcomings which either give life to the technological system or render it less than fully effective.

The successful engineer will have to function in the human system in the plant and later in life will have to manage both the technological and the human systems in concert with others. A truly academic cooperative experience is one in which the student's attention is focused on the human or managerial orchestration of the activities going on about him and not only the particular intricacies of an electrical circuit or a control system, important as they may be.

A cooperative work assignment should be similar to a reading assignment in a text. Just as reading material must be discussed, analyzed and shared in the classroom, so it is appropriate that the cooperative assignments be treated in a similar way in order to determine and evaluate the student's understanding of what he experienced. Each engineering faculty member should conduct a seminar composed of fifteen or so students from different departments and at different levels of cooperative progress. Included can be those students who are yet to receive their first cooperative assignment. The latter should be auditors and passive observers in the seminar.

Each cooperative student conducts a seminar session in which he describes the company, division and section in which he has worked. The session should be preceded by a written report. He should explain how he fits in the company's table of organization; how he relates to professionals and non-professionals; describe the managerial talents and sensitivities of his supervisors up the chain of command; relate some actual human relation incidents with his critique of what did happen, what in his opinion should have been done and the uncontrollable circumstances that contributed or detracted from a desirable conclusion. The class should question the opinions expressed by the student conducting the seminar to the point that he could be evaluated by them.

With this treatment of the cooperative work experience the technical sophistication of the assignment is not a factor in the evaluation. The Faculty is intimately involved in a significant way and the human factors in the engineering situation are woven into the educational program. In the seminars, special inquiry can be made into the "personality" and "management styles" of each company not so much to establish a preference of one over the other, which usually comes out of a non-objective bias, but to understand that there are differences and each has its advantages and disadvantages. Moreover, in the classroom, inquiry can be made into the characteristics of supervisors and executives in an informal study of the psychology of leadership. The students can learn from their shared experiences how local and company-wide politics influence the engineering enterprises and the projection can be made into the civic arena to develop an appreciation of the impact of governmental politics on urban and regional engineering.

With this kind of a cooperative program, the student with cooperative experiences will undoubtedly have a richer and fuller education than the student in the simple academic program interspersed with work experience during summer vacations.

To raise this proposed scheme to a high academic level and have it taken seriously by the students, faculty, administrators and companies, three credit hours should be assigned each cooperative semester and a full grade of A, B, C, D or F granted after the completion of the seminar following the student's cooperative training assignment. At the University of Detroit this would mean that a cooperative student could earn from nine to twelve credits during his undergraduate work for his cooperative assignments. These grades, high or low, would have a significant impact on his grade point average and it is recommended that the seminar be graded as stringently as any other class. It is not recommended here that cooperative credit should replace technical elective credit. Students need all the academic work they can get. On the other hand, the grading system proposed here could enhance the grade point average of the serious student who took cooperative education as an overload in those schools where the program is optional. His transcript would be more impressive than that of a non-cooperative student.

Conducted properly, cooperative education can provide the kind of education that will never become obsolete as the engineer progresses through life.

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WANDA B. MOSBACKER - University of Cincinnati

Dr. Asa Knowles, President of Northeastern University stated recently:  
"If cooperative work experience is well designed and administered as an integral part of the educational program, then it merits recognition as part of the degree."

Dean Lawrence Canjar, Chrysler Professor and Dean of Engineering of the University of Detroit commented that:

"The full potential of Cooperative education will not be realized or appreciated by university students, faculty, and administration until a significant amount of credit is granted for this experience and the grading is such that it will have an impact on the student's grade point average. Until cooperative credit can make the difference between a student graduating with or without honor, it has not achieved its full recognition.

In January, 1971, the Joint Committee of CEA/CED on Academic credit approved the following recommendations as a general guideline, which were also supported in principle by ASEE's Executive Board:

- Institutions providing cooperative education experience to their students should grant academic credit for these off-campus assignments under the following circumstances
  - The student completed all required off-campus cooperative educational assignments in his specific program
  - The student submits a final written report to the educational institution after the conclusion of the final work period for consideration for academic credit.
  - Evaluation will be on a pass-fail basis

A recent survey of 200 cooperative institutions revealed that of the 78% that replied, 58% said that they award some type of academic credit for off-campus work experience. The number of credits that could be earned in a term varied from 1 to 9, with the total non-additive credit ranging from 3 to 27. Also, a recent poll of student opinions and of employer opinions indicates that academic credit is favored by a large majority.

It is predicted by reliable sources that the granting of academic credit for cooperative work will be the practice in almost all participating institutions of higher learning within five years. Therefore, any institution which is in the process of starting a cooperative program should strive to include a provision for granting credit in their initial program plan.

Diversity of rationale, methods of evaluation and awarding of credit, while reflecting healthy and vigorous differences of approaches, increase the difficulty of determining the best plan for granting credit for cooperative work as a new program is being launched. Some of the questions that would need to be resolved are:

- Should the credit earned through cooperative work be allocated on the same basis as academic credit or on a separate system of credits--such as degree credit rather than academic credit?
- Should the credit be non-additive or additive in relation to baccalaureate degree requirements?
- Who should be responsible for granting academic credit? The coordination faculty? The teaching faculty?
- Who would determine what off-campus experiences are acceptable for credit?
- What should be the basis of the evaluation? The off-campus experience? The employers evaluation? A major paper? Student reports? Seminars? Number of hours worked? Collateral reading? Courses taken while on practice period either at the student's institution or another institution?
- What kind of grade should be given? Pass/Fail? A letter grade? Satisfactory/Unsatisfactory? Credit/Non-credit?
- When is the credit to be awarded? At the end of each satisfactorily completed period? In a lump sum at the end of the final practice period?

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GEORGE H. MILLER - University of South Florida

The subject of academic credit has drawn quite a bit of attention in the cooperative education field in recent years. Unfortunately, much of it has been for the wrong reason--ways of getting dollars rather than making the work experience really worthy of academic credit.

In brief, many institutions, especially institutions which are state funded, gain dollars via academic credit. Therefore, it is to the advantage of the accounting office of said university to have academic credit attached to cooperative education. In turn when such credit is attached for dollar reasons it in most cases becomes "add-on" credit, meaning if the student was

required to earn 180 quarter hours in the past for a degree, he or she is now required to earn 180 hours plus whatever is allowed for cooperative education to earn the degree. The amount given for cooperative education is just added on.

To me the only kind of credit that can bring dignity to cooperative education is pure academic credit. An evaluation of the method each institution uses in its placement of cooperative students and follow-up should give some indication of academic credit value--it varies with the institution. It should be noted that two students can have the same cooperative assignment and one will gain what could be considered 5 hours of academic credit and the other student nothing, the latter because the coordinator at the institution and the coordinator or supervisor on the assignment failed to show the student the value in his or her assignment. This is a most important matter--the coordinator showing the student the academic value in a cooperative assignment.

Today there are programs that award up to 15 hours of academic credit for an off-campus assignment. This, I believe, is most unrealistic even if done only for budgetary purposes with add-on credit. But some make this "real" academic credit. It may in turn help with the budget but it turns faculty members away from cooperative education--it becomes a threat to them. It is my belief that some range of credit might be established ranging from 1 to 5 hours per assignment--credit hours.

In approaching academic credit I believe the best way is to go to the faculty first and let them support the push for such credit. I believe they will if shown what value is really found in the off-campus assignment.

Let me return for a moment to "add-on" credit for budgetary reasons. If this is the only way a cooperative program can be funded then this must be something the director or coordinator must accept. If you are forced to go this route and the credit is "add-on" then you for your best interests should shoot for the highest figure possible--ten to 15 hours credit a term. But only this is "add-on" credit.

Another way of avoiding this academic credit battle is to allow an off-campus assignment or assignments to replace a given number of academic credits. If in the past the institution granted the degree for 180 hours of quarter credit it might change for the cooperative student and grant the degree for 160 hours plus a minimum of five cooperative assignments. This is something to seriously consider although it may find strong opposition in some circles.

If in coming months, academic credit, yes or no, faces your program, one of the persons most knowledgeable on this subject you can turn to for advice or counsel, is Professor John H. Sherrill, Director of Cooperative Education, University of West Florida, Pensacola, Florida 32504. Professor Sherrill has headed the Academic Credit Committee of the Cooperative Education Association and has studied dozens of programs at other institutions. His own institution does grant academic credit--the credit being worthy of "real" hours toward graduation.

Academic Credit is a subject that will be discussed much more in the immediate months ahead by many institutions. If you will face such discussions at your institution within coming months it will be well for you to do your own homework now. Get acquainted with such terms as: Academic Credit, Add-on

Credit, qualifications for graduation, and other terms that you will find in your research on the subject. In turn get the viewpoint of your Academic VP or Dean, the views of the Comptroller or budgetary officier for the institution, members of the faculty, and the viewpoin' of students. Be well prepared for any discussion of ACADEMIC CREDIT.

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S. B. COLLINS - Drexel University

In years gone by, academic credit for cooperative work was almost unheard of. Rather, such credit in required programs was usually necessary to meet graduation requirements. At this time, with the great number of new colleges entering cooperative education, one observes that most of them are going into the program on the basis of granting such academic credit which will appear on the transcript as any other subject would. This is undoubtedly good for many reasons:

First, it establishes the validity of cooperative education and the attendant willingness of the academic community to recognize it for what it is.

Secondly, it if more likely to extend an important influence on the cooperative student as students tend to be careful of grades and transcript information and this could, therefore, cause them to be just a little more serious about their activities as cooperative students.

Thirdly, accrediting agencies themselves are becoming aware of the educational values of cooperative experience and, when such experience appears on the transcript in credit form, this will enhance the values of such a program.

Fourthly, it is entirely likely that faculty can become more involved in a general way with the cooperative program if academic credit can be given as opportunities can be given to them to participate. This can take such form as reading the student's report, bringing out cooperative experiences in the classroom, etc. One danger of faculty involvement is that they may attempt to become too involved and might wish to sit in judgment on particular work situations or student problems when they do not have full information on the total background of the problem.

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ROBERT B. AULD - Cleveland State University

Is it reasonable to give academic credit for cooperative work periods? The question has been asked for years. It has been answered affirmatively by some institutions, negatively by others. In a 1971 survey of cooperative education it was found that thirty-five percent of the operating programs reporting said they grant credit for cooperative work experience--credit which takes the place of credits otherwise earned in the classroom. Forty-eight percent said they do not give credit, and fourteen percent said they give it but increase the credit requirements for graduation by an equal amount. (See James A. Wilson, "Survey of Cooperative Education," Journal of Cooperative Education, November 1971).

Dr. Wilson in this article does not say whether those who "grant credit"

do so invariably in terms of academic credit hours or simply record credit for so many work periods. In the Journal for November 1966 Dean Emeritus Clement J. Freund of the University of Detroit made a characteristically impassioned plea for granting cooperative credit in what he calls the academic coin of the realm, for he says "...the credit hour is the solid dollar, the pound sterling, of student progress in the United States." He feels that such a practice if universally adopted would enhance the prestige of cooperative education, would make educators take it more seriously, and would give accrediting teams a basis for evaluation of cooperative programs.

Dean Freund did some research in collaboration with Don Hunt and came up with an interesting formula for deciding how much academic credit should be given for a work period. It is enough to say here that the computation is based upon the differential in starting salaries for cooperative and non-cooperative graduates (of that year). It comes to approximately four credit hours for each work period.

The gist of his argument (in his own words) is this: "We ought to be consistent...we say over and over that cooperative training has genuine educational value. And then we decline to express that genuine value in terms of the credit hour, which is the universally accepted measure of college attainment in the United States."

In 1971 a joint committee of CEA/CED, which had been working on the problem of academic credit for three years, reported that "a climate of opinion favorable for granting academic credit now exists." Asa S. Knowles tells of this committee's conclusions in Chapter XV of the Handbook of Cooperative Education. The committee recognized for one thing that the question of whether work experience is "academic" has never been resolved. (They thought it should be resolved, and so do I). They concluded that academic credit, if given, should only be given after all work periods have been satisfactorily completed (and reported on). They also felt that academic credit for work periods should not be of the "add-on" kind.

The subject is still very much open for debate. Perhaps we at this institute can add some valuable ideas to the discussion.

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## PART VI. FACULTY AND PUBLIC RELATIONS

JAMES VICKREY - University of South Florida

**IDENTIFYING TARGET GROUPS:** Assuming a well-defined Cooperative Education program with appropriate objectives, the first step in promotion is identifying key target groups--or the various publics of the program.

Every Cooperative Education program has internal and external publics. Internal publics or target groups are (1) the staff and students of the Cooperative program itself and (2) the faculty, staff and students (present and former) of the University at large.

External publics are (1) the employers of Cooperative students and (2) members of the business community and public at large, including key members of the various media and special groups like the local legislative and Congressional delegations.

**SELECTING AND UTILIZING APPROPRIATE STRATEGIES:** The number of available strategies for communicating with these internal and external publics is limited only by the fertility of our imagination. The following strategies, approaches or uses of various available media have been utilized at many institutions and are included as examples of the possibilities. Most of them are appropriate for reaching both external and internal publics.

### Press-Print and Electronic Media

All media used for promoting the institution may be used to promote Cooperative Education which in turn provides impetus to institutional relations.

The public press in general may be used to present studies covering Cooperative Education and the development of new programs. Get to know the Feature Editor, Business Editor, and any other editor you believe would have a special interest in a story you have to offer.

Weekly and hometown newspapers are receptive to stories describing the unique positions held by Cooperative Education students, featuring their cooperative assignments. Not a shotgun approach but a personal note with a release to an editor about someone from the area.

Employer publications including magazines, newspapers, and newsletters usually welcome stories describing the Cooperative Program and the students involved if they are working for the employer, especially if they are sons or daughters of long-time employees.

Radio and television representatives like stories of Cooperative Education. Many stations will use public service announcements to tell of Cooperative Education and its opportunities. While radio will usually limit a program to 15 minutes or less a number of television stations have found a place for a half hour program on Cooperative Education.

In dealing with the press, work through your University's PR branch unless they advise going direct, and if you go direct, still touch base with the PR office. Never let them feel you are "scooping" them in delivering a story without their knowledge.

Campus literature, such as brochures welcoming persons to the campus, may feature Cooperative Education--tell the story and people will look up to the students who can earn their own way in life, even if only partially. Cooperative Education information is highly welcomed by high school guidance offices in recruiting literature--many write and ask for more. And these counselors need to be kept well-informed because their support may well have a sufficient impact on your Cooperative Education program.

The campus press may be used by working with student journalists writing feature stories as well as the hotter news. Cooperative education always has an unusual story to tell, unusual pictures, etc., for the student newspaper and the yearbook.

Newsletters and bulletins sent out by the institution, or the institution's fund raising branches, such as its Foundation or Alumni Association, are good outlets, also.

### Recognition

Cooperative Education provides another opportunity for the institution to single out employers, students, faculty, and supervisors of employer organizations by recognition awards such as certificates or plaques. These in turn generate their own news value.

Administrative Personnel: Keep administrative personnel informed of your program and in turn ask them to let you know of changes that will drastically hit Cooperative Education, things such as change in registration, housing policies, loan policies, use of University services such as library, swimming pool, golf course, student center. If a Cooperative student is working on his cooperative assignment in the immediate area he should have access to all those things--he is a full-time student. A few cups of coffee with the "right" people is not time lost. Memos are good, but a newsletter is perhaps the best way to put your message on the line. Don't use white paper for a newsletter--use a bright color so it is easily identified.

Faculty: Keeping the faculty in the position of supporting a Cooperative program is most important. Their references to Cooperative Education when in the classroom or when advising students in their offices can be a tremendous plus or MINUS. Keep their comments on the plus side. Keep them informed of the student Cooperative successes that come from their departments.

Special Days/Programs: Where time permits a one-day program, "Cooperative Education Day," on campus may have its value for both the institution and the cooperative program. Such programs can be most successful where the employers are invited to spend the day on campus, share in the program along with Cooperative students and faculty as well as administrators. It gives the institution an opportunity to get a direct feeling from the employer as to the value of Cooperative Education, perhaps a feeling for change, suggestions for improvement, and in turn a vote of confidence.

Alumni: Most students who enroll in Cooperative Education Programs if the programs are quality programs, become loyal alumni. Many of these have found Cooperative Education to be their path to a college education--a degree--as well as a superior kind of an education. The value these alumni place on Cooperative Education is demonstrated by the large numbers of graduates who encourage their sons and daughters to go the Cooperative Education route to profit

from this type of an educational experience. Many graduates via the Co-operative route eventually arrive at a position where they are the employers. Keep in touch with these supporters of Cooperative Education. They may now be Cooperative employers.

Placement: An institution with a Cooperative Education Program has a distinct advantage in the operation of its Placement Office. As Donald Hunt told the 1964 CEA organizational meeting, "An institution with a quality Cooperative Education Program has little need for a placement office as most institutions think of it--placement is really taking place for more than 50 percent of the students at the sophomore level." And it is true that in many of the quality Cooperative Education Programs 55 to 60 percent (at some institutions the percentage is even higher) of the students stay with the same employer where they were Cooperative student trainees.

#### Cooperative Student--Ambassadors of Good Will

Experience has proven that the Cooperative student is an ambassador of good will both for the employer and for the institution. When a well qualified Cooperative student is assigned to an employer he can take the message of the institution direct to the employer. Of course, the reverse holds true as well, and was recognized even at an earlier date, that the Cooperative student could be an excellent ambassador of good will for the employer when the student was back on campus.

SEEKING AND EVALUATING FEEDBACK: A promotional effort without feedback is relatively useless. We need assessments of the impacts of our efforts to determine whether the strategies used were effective in enabling us to achieve our objectives and whether certain strategies should be continued. Feedback devices may include: questionnaires, personal letters requesting reaction and personal contacts asking for suggestions.

A PARTING WORD: In this day when funding is in short supply, when education is being reviewed and surveyed from all angles, it is good to be able to promote a product that is readily acceptable by employers, parents, and most students. Most people still look at the work ethic as being "a good thing." Cooperative education fits the mold that say to people, "this is a good thing."

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WANDA B. MOSBACKER - University of Cincinnati

One difficulty encountered in cooperative education programs has been the lack of support and even outright hostility on the part of some teaching faculty members and administrators to cooperative education. The reasons for this opposition are varied but often stem from a devotion to the traditional pattern of education. There is a reluctance on the part of many faculty members to teach on a twelve-month basis; most want to have the summer free for other activities. Many desire to write, do research, or pursue some academic personal development during one quarter of each year, as has been the tradition. Teaching faculty members also dislike the repetition of the course materials as is necessary on cooperative education schedules. Many faculty members have led sheltered lives quite different from those in which most students in their classes will be involved; they have not experienced the world of work as most citizens experience it, and, therefore, do not place much value on the application of theory to practice. Also some teaching faculty members

have a tendency to be smug about their college education which in almost 100% of the cases followed the traditional pattern not the cooperative plan and their smugness tends to produce a negative attitude toward the cooperative education concept. While in many instances cooperative work experiences confirm the student's choice of a career, in some cases they cause students to transfer out of the discipline; a move which is often not looked upon favorably by the faculty of the initial discipline. They tend to regard this move as a disservice to both the student and his discipline.

It is vital that the entire teaching faculty be wholly committed to the cooperative plan in order to ensure its continuing success. Those who are not wholly committed have been known to cause moral problems among their colleagues as well as among the students. Faculty members who give strong support to such programs as "University Without Walls", "Independent Study", and "Foreign Travel" continue to reject cooperative education. Yet, cooperative education is innovative, relevant and student-oriented through its individualization of the educational process as a whole; it results in low attrition rates. Such claims cannot be made by other forms of higher education that receive their unquestioning support.

Many faculty members who are critical of cooperative education at the outset, do, in time, become enthusiastic supporters. Many feel that there is value in the cooperative education system if the student's experience is directly related to his discipline. A concept that needs to be clarified and promoted strongly with the teaching faculty, however, is the value of relevant, but not necessarily discipline-related, experience.

It cannot be emphasized too strongly that the commitment of the teaching faculty to the concept of cooperative education is a prime requirement for a successful program. It is important to strive constantly to develop and maintain faculty involvement in the program. Some types of institutional organization for cooperative programs lend themselves more readily to good faculty communication than others. Although a centralized operation has many organization advantages, constant communication with the teaching faculty is more difficult. A very conscious and continuing effort must be made to maintain good communication with the teaching faculty in a centralized organization. In most institutions communicating is facilitated when the coordinators have faculty rank and serve with equal status on college, departmental, and university committees.

At the University of Cincinnati, where we have a centralized operation, we must constantly strive to maintain good communication with the teaching faculty. We encourage them to come to our offices to have coffee with visiting recruiters or to talk over with our coordinators any matter that is causing concern. From time to time, our coordinators invite teaching faculty members to accompany them on company visits. However, conflict with class schedules often presents a problem. Even though interested in making such visits, the teaching faculty members are very limited as to the number of company visits they can make with the coordinator. Early each Autumn we arrange comprehensive orientation periods for new teaching faculty to explain thoroughly the details of operation and the benefits of cooperative education.

In the Spring of each year at a Recognition Awards luncheon one student in each major is honored for outstanding achievement in fulfilling the Program requirements. Several employers with superior programs are also recognized at the luncheon. All faculty department heads and top administrators are invited

as guests to the luncheon and it is felt that this luncheon provides another excellent means of fostering good communication with the teaching faculty. It would be desirable to invite all faculty members, not only the department heads and top administrators, as guests but a restricted budget prohibits this.

In still another way, we have involved the teaching faculty in our Program. One department head from each of the three participating colleges serves on the (Cooperative Education) Standards Review Committee, a committee responsible for the just, educational, and sympathetic actions and solutions concerning the students and their association with the cooperative program. Serving with the three teaching faculty members, are three student representatives, and three members of the cooperative education faculty. Having representatives of the teaching faculty on this committee has helped tremendously in developing understanding of the kinds of problems that are encountered and in providing feedback through the faculty representatives on the committee to other college faculty members in their colleges.

Each quarter, a copy of the employer's description of each student's responsibilities as it appears on the employer's appraisal form, is sent to the student's department head, who, in turn, circulates it among his faculty members so that all faculty members have current, accurate information concerning the student's practice experiences.

The tremendous increase during the past decade in the number of institutions of higher learning, some of them very prestigious institutions, now offering cooperative education is helping greatly to change faculty attitudes and to improve faculty relations. The professor who is totally unfavorable to the concept of cooperative education is becoming more of a minority and this minority should continue to shrink even further in the light of the recent very favorable recommendations made by three national higher education groups in support of the combination of work experiences and formal study: The Carnegie Commission Report, The Report of the Assembly on University Goals and Governance of the National Academy of Arts and Sciences, and the so-called Newman Report on Higher Education.

However, no cooperative education staff can rely totally on outside influences to bring about faculty commitment. Constant effort must be expended in keeping all teaching faculty and administrators informed and involved in the cooperative education program.

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ROBERT B. AULD - Cleveland State University

In my estimation anyone wishing to understand the problems encountered by a department of cooperative education in its relationships with the administration, the faculty, and the students of the college or university could do no better than to make a careful study of Niccolo Machiavelli's The Prince. Perhaps Aristotle's Politics might also be helpful. For the name of the game in modern colleges and universities--as in all human institutions--is POWER.

Machiavelli says, for one thing, that "... it is well to seem merciful, faithful, humane, sincere, and religious, and also to be so; but you must have the mind so disposed that when it is needful to be otherwise you may be able to change to the opposite qualities." Does this remind us of administrators, faculty members, or students we have known? Does it remind us (heaven forbid)

for ourselves? For Machiavelli also says, "One must...be a fox to recognize traps and a lion to frighten wolves."

Some cooperative education programs are fortunate in having administrations completely sold on the value of cooperative education. If the president and board of trustees thoroughly approve the plan, that is half the battle. But cooperative education is inevitably only part of their interest. Others in the administration are entrusted with the promotion of other facets of the educational operation, and it is natural that conflicts may ensue. It is the role of the director of cooperative education to recognize these conflicts and do his utmost to present the case for cooperative education in an effective and persuasive way. I would suggest that his first duty is to learn to recognize an S O B when he sees one and then learn to live with him if that proves possible. If that proves impossible, the fat is in the fire and a battle is inevitable. In the heat of such a battle it might be well to recall the words of Danny Kaye: "The higher you bounce the buck, the longer it takes to come back to you."

In dealing with the faculty we must remember that it is usually organized in departments, each of which is intent on its own growth. If given an opportunity to see what cooperative education does for the student, most faculty members can be won over to an enthusiastic endorsement of the program. But the academic department is often plagued with budget problems, and it frequently happens that the acceptance of a satisfactory alternating cooperative schedule runs counter to the department's desire for economy. So the cooperative department is faced with a selling job, and this points to the importance for all coordinators to become well acquainted with all faculty members in the departments they handle.

Colleges and universities vary greatly in their attitudes toward students. Some retain the traditional magisterial stance which relegates the student to a position of a small one who must do what he is told. Others elevate the student to an important position which enables him to threaten the autonomy of the administration itself. And, of course, one can find all degrees of gradation between these extremes.

Cooperative Education is student oriented. It exists to serve the student (as all educational programs should). It can be dictatorial in its operation, or it can be foolishly permissive. I believe, however, that the most effective programs are those which utilize to the utmost the help which student inventiveness can offer.

Probably the best method of capturing the potential of student thinking is through the organization of a student cooperative council or student cooperative board. Obviously such a council cannot be permitted to usurp the prerogatives of the department itself. On the other hand, its usefulness is nullified if it is not permitted to have a real voice in determining policy.

When one thinks of politics, one can think of practical wisdom, of prudence, of shrewdness (in a good sense), of diplomatic dealings. On the other hand, one can think of craftiness, of unscrupulousness, of acts prudently or artfully contrived for personal or partisan gain, or expediency, or scheming opportunism.

I hold, however, that the director of a cooperative program (and his staff as well) should endeavor as far as possible to adhere to a course of understanding, far-seeing principled conduct. To the degree that he is able to do this, he will rise above the status of a politician to that of a statesman. Perhaps with practice he can not only maintain the appearance of being merciful, faithful, humane, sincere, and religious, but actually be so as well.

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S. B. COLLINS - Drexel University

As a cooperative office is a separate arm of the university, seemingly isolated in its activity, it becomes a question as to how it is related to other persons in the university and what their views might be about the cooperative program. Judging from the experience of the National Commission for Cooperative Education, Mr. George Probst, their Director, has indicated in his effort to interest more colleges in starting cooperative programs that the greatest stumbling block is the faculty itself. In too many instances, they have a negative view of the process and do not regard it as having educational values for students. As such, it behooves the Office of Cooperative Education to inform such people about the objectives of the program and in some sense prove to them that cooperative experiences are indeed valuable in the educational life of the student. In this manner, Their support can be won and they can be believers in the system. There are a number of means available to do this, such as occasionally employing a faculty member in the Office of Cooperative Education, taking a teacher with you on company visitation, have the faculty member read the Industry Report as written by the student, create a Newsletter of Cooperative Education for distribution throughout the faculty and administration and actively solicit the faculty for any contacts they might have on the outside which could be utilized for the placement of students.

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## PART VIII. MINORITY STUDENTS AND COOPERATIVE EDUCATION

JAMES T. GODFREY - Virginia Polytechnic Institute

Many individuals and groups look upon Cooperative Education as the ideal vehicle for bringing minority groups into the main stream of economic and cultural life in the United States. During the first three years of Cooperative Education grants to colleges and universities made by the U.S. Office of Education, the major part of the funds have gone to schools with large groups of minority students enrolled for planning and implementation of new Cooperative Programs and for strengthening and expansion of existing programs. The major objective has been to get more minority students involved in Cooperative Education. Certainly most employers--both public and private--have supported this effort. Throughout the country there is a great push to hire minorities and to move them up in the organizations as rapidly as possible. Under names such as "Affirmative Action Plan", "Upward Mobility", and "Access", employer programs to hire and develop minorities are proliferating.

Cooperative Program Directors and Coordinators are having no problems in placing minority students--companies and government agencies are, literally-lined up to hire them. Most minority students have several employment opportunities from which to choose each time they are preparing to go on a work assignment. The demand for minority Cooperative Students far exceeds the supply. Thus the problem is: How can we attract more minority students into Cooperative Education?

In my opinion, the major problem is one of emphasis. Too many students, and their parents, perceive Cooperative Education as primarily a financial aid program. All of us--including the government and employers--have contributed to this inaccurate image. With many other sources of financial aid available--equal opportunity grants, guaranteed loans, work-study programs, etc.--many minority students do not even consider Cooperative Education; especially if it requires an additional year in school. My own experience in a traditionally all-white Land Grant University, one that is striving to increase the enrollment of minority students in the University and the Cooperative Program, certainly supports the above observations. I have been told by many people that the same situation exists--perhaps to a lesser extent--in the traditionally all-black Colleges and Universities. Obviously this would not be true at Wilberforce University, which operates a mandatory Cooperative Program for all students. I am talking about the optional programs in schools like Tuskegee Institute, Southern University, North Carolina A. & T. State University, etc.

So what's to be done. First, we need to change the image--and this applies to white students and parents as well as minorities. We need to publicize the less-obvious advantages of Cooperative Education--all of the values (application of theory, relevancy, more rapid maturity, opportunity to work with professionals, etc., etc.) that add up to a better total education. And, we need to de-emphasize the financial aid aspects. We don't need to compete with the Financial Aid Office on campus--besides, we are at a disadvantage in this kind of competition. We do need to enlist the help of Financial Aids Officers--make them knowledgeable and sympathetic about Cooperative Education so that they will help in our recruiting efforts. We also need to work more with Upward Bound Programs and High Schools--get the students and parents

acquainted with, and sold on, Cooperative Education before they make the decision about where they are going to college and how they are going to pay for it.

We ought to work more closely with our Admissions Offices--especially with the people who visit the high schools with large groups of minority students. And, once we have identified the minority students who are potential Cooperative students for our colleges, we need to talk to their parents and sell them on the values of Cooperative Education. Many parents of minority students did not have the opportunity to attend college. When this opportunity becomes available to a son or daughter, the parents are often reluctant to see their child enroll in a program where his "education" will be periodically interrupted by work periods and, in many cases, would require an extra year. These parents, understandably, want their children to finish college in the shortest possible period of time. These are, I am told, the normal attitudes; and we need to properly explain what Cooperative Education is all about to change this point of view.

In summary, we need to change the image of Cooperative Education, to emphasize the positive values other than financial aid, in order to attract more minority students into Cooperative Education.

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#### GEORGE H. MILLER - University of South Florida

It is my belief that it takes a person closely representing the minority group to recruit minority students, especially blacks. Let me briefly review the recruitment of Black students at South Florida.

Until 1970, although there were several hundred Black students on campus there were never more than 2 or 3 in the program at any one time even though efforts had been made by announcements, letters, group meetings to recruit such students. Then a Black coordinator was hired and the number of Black students involved jumped to nearly 50 in little more than six months.

To some degree it seems that a female Coordinator attracts female students and this could be said of a Latin coordinator, also. It appears the student whos more confidence in meeting with and working with a coordinator of his own group.

#### **Ways to Attract Minority Students**

##### **- Off-Campus**

- Coordinator Visitation to High Schools, meetings with counselors and students
- Speaking before minority groups
- Press releases in minority newspapers (very helpful)

##### **- On-Campus**

- Work with Admissions Officers of School
- Letters to prospective students
- Coffee rap sessions with prospective cooperative students after they are attending the institution
- Develop close relationship with Counseling Center to gain referrals

- Testimonials of those who have been on the program once you gain a few successes
- Help from faculty members representing the minority group, Women, Blacks, etc.

#### Other Ways to Recruit

- Employers who seek minority students
- Pre-Cooperative Programs (admission to program directly out of high school on recommendation of employer who has agreed to employment).
- Employer Cooperative scholarships

In general the minroity group must be convinced that the program is for them and that they are welcome.

While you will rejoice at successes, be prepared to face a few failures. Some from minority groups will walk out on the program, especially if they believe the rules are not designed to give them a fair shake. But if the coordinator can gain the confidence of the student, your successes will far outweigh your failures.

As it is not possible for a small Cooperative program to have a full-time coordinator representing every minority group on campus, you must develop representation in the various colleges or department who will help the coordinator. Perhaps a Black faculty member on your Cooperative Council or just a Black faculty member, can help you, if you are not Black, in recruiting Black students. A woman faculty member can help recruit women.

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## PART VIII. FEDERAL FUNDING

### SINCLAIR V. JETER - U. S. Office of Education

The focus of Federally supported Cooperative Education Programs has been and continues to be on matters related to the national demand for expanded educational opportunities in career education, to the increasing costs of higher education, to the educational and economic benefits of institutional cooperation, and most importantly to the needs of individual students.

Federally supported Cooperative Education Programs continues to give priority attention to low-income and minority persons, to veterans and women, and to the handicapped.

**RECENT LEGISLATIVE HISTORY:** The Federal government has supported cooperative education in institutions of higher education since 1968 when the Higher Education Amendments were passed to amend the Higher Education Act of 1965. In fiscal years 1970 and 1971, the Federal government provided that one per centum of the sum appropriated for the College Work-Study Program be utilized for Cooperative Education Programs. It totaled \$1,540,000 and \$1,600,000, respectively. In FY 1972, the Federal government appropriated \$1,700,000 for Cooperative Education Programs, independent of the College Work-Study Program, under Title IV, Part D, which was part of the Higher Education Amendments of 1968. The appropriation for FY 1973 and for FY 1974 equaled the annual amount of \$10,750,000 for these years.

**PURPOSE:** The purpose of Title IV, Part D, is to assist institutions of higher education in their cooperative education efforts by increasing the number of opportunities for students (1) to work in jobs that would extend their academic experience beyond the classroom, (2) to test early career choices, and (3) to earn money to continue their education in jobs that would enhance their academic and occupational objectives. In other words, the objective of the legislation is to enrich the quality and scope of higher education for the student through educationally related work experiences that would assist in counterbalancing lack of exposure to the work world, "irrelevancy", and need for financial assistance.

**INCREASED INTEREST:** In 1960 there were only 45 colleges and universities with cooperative education programs in the United States. These programs involved approximately 20,000 students. By 1971 there were at least 250 colleges and universities with cooperative education programs, and the number of students had increased to more than 125,000. In that same year students earned approximately \$250,000,000 in the work phases of the program, and included, in these 1971 data, were programs supported by the U. S. Office of Education.

Because of the low-level of funding for Cooperative Education Programs from 1970 through 1972, the USOE supported only the administration of programs in different stages of development (planning, initiating, expanding, and strengthening). Support for training and research (authorized by the Higher Education Amendments of 1968) and for demonstration projects (authorized by the Education Amendments of 1972), first received support in 1973. A number of training programs for directors/coordinators of cooperative education programs, however, have been funded under the HEA V-E Institutes Program.

Limited Federal funding of Cooperative Education Programs has, nevertheless generated considerable interest among students, educators, employers, and communities served. The table that follows reflects this.

Differences in level of Federal funding, average grant size, number of grantees, number of applications received, and requests in dollars for FY 1970, 1971, 1972, 1973, and 1974. (Some of these data are rounded figures.)

FY	Funding level	Average grant	Number grantees	Number applications received	Requests in dollars
70	\$ 1,540,000	\$20,000	74	206	\$ 8,500,000
71	1,600,000	17,582	91	344	12,300,000
72	1,700,000	20,238	84	291	11,000,000
73	10,750,000	30,281	355	642	28,000,000
74	10,750,000	(see below)	371	641	28,000,000

FY 1974-75 FUNDING

	Number grantees	Amount	Average Grant
Administration of Programs	349	\$10,000,000	\$28,653
Training Programs	17	553,000	32,529
Research Programs	5	<u>197,000</u>	<u>39,400</u>
TOTAL	371	\$10,750,000	

Type of grantee	Total	% of Total	Funding	Funded % of total
Publicly Supported	246	66.2	\$ 7,060,000	65.7
Privately Supported	<u>125</u>	<u>33.8</u>	<u>3,714,000</u>	<u>34.3</u>
TOTAL	371	100	10,750,000	100
2-year	143	38.3	3,795,000	35.3
4-year	<u>228</u>	<u>61.7</u>	<u>6,786,000</u>	<u>64.7</u>
TOTAL	371	100	10,750,000	100

\$750,000 of the appropriations over the past two years has been granted for cooperative education training and research: 75% of the funds for training, and 25% for research. Training has been principally for cooperative education program directors and coordinators and for employers of cooperative education students. The training sessions include all of those personnel who administer the program. Research is being undertaken to determine the cost of cooperative education students to employers; to develop "models" and provide guidelines to those planning cooperative education programs; to determine different methods of preparing students for cooperative education assignments; and to evaluate the effectiveness of their assignments.

A 1972 amendment to the legislature provides that demonstration projects may also compete for the training and research funds. Such projects should have national implications and might demonstrate the significance and potential in such areas: (1) procedures involved in the implementation of cooperative education programs at various types of institutions in urban vs. rural settings; (2) effective methods of dealing with business, social service, and industry in order to secure positions for cooperative education students; (3) methods of arranging positions which expose students to career clusters; (4) effective methods of meeting the unique needs of special interest groups such as ethnic, minority, returning veterans, the handicapped, women, and so forth; and (5) ways in which institutions, particularly two and four year institutions can work together to give transfer students continuous and coordinated cooperative education options.

The number of applications received in FY 1973 (650) was approximately two times as many as the number received in each of the preceding three years, and the amount of dollars requested in FY 1973 (\$28,000,000) totaled more than two times as much as the amount requested in FY 1971 and in FY 1972. It was more than three times as much as the amount requested in FY 1970.

The Administration's budgets for FY 1973 and 1974 requested full funding for Cooperative Education Programs, that is, a total of \$10,750,000 for each year. The increase reflects Administration concern for career education, which "seeks to emphasize career orientation and preparation programs at all educational levels that will enable every student to choose a career he really wants and to get training that will make success in that career not only possible but probable" (from a speech by Mr. John Ottina, Acting U.S. Commissioner of Education, before the Conference on Career Education).

There is considerable evidence of increasing interest in cooperative education throughout the country. For example, the House of Representatives, in its version of the Education Amendments of 1972, recommended funding of Cooperative Education Programs at the \$10,000,000 authorization level. A number of distinguished organizations in the higher education community have publicly supported cooperative education in recent years. In 1971 the Carnegie Commission Report on Higher Education, Less Time, More Options, recommended "that opportunities be expanded for students to alternate employment and study." The Newman Report on Higher Education in March, 1971, recommended that "cooperative education programs be greatly expanded." The Report of the Assembly on University Goals and Governance of the American Academy of Arts and Sciences, in January, 1971, recommended that institutions of higher education develop cooperative education programs as a needed, non-academic experience.

There are many other examples. It would seem that Cooperative Education Programs' time has come.